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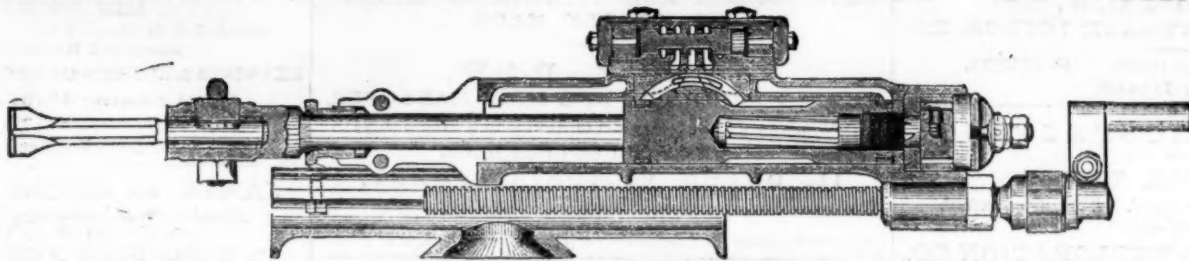
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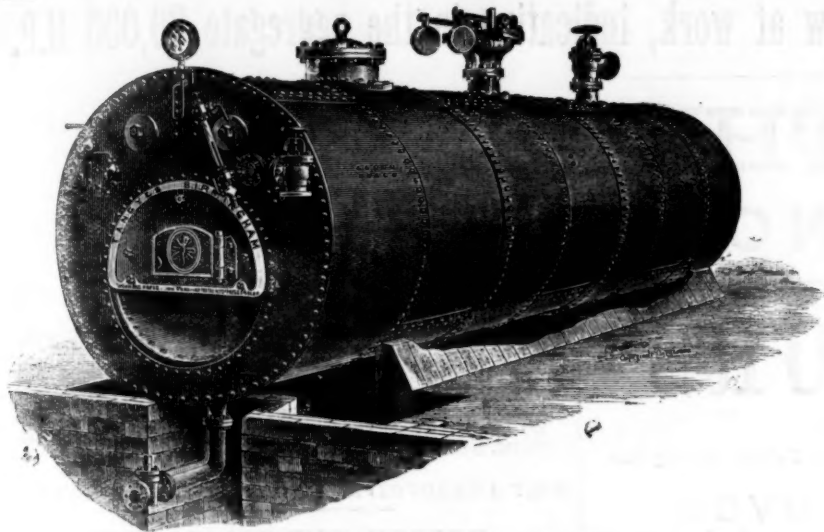
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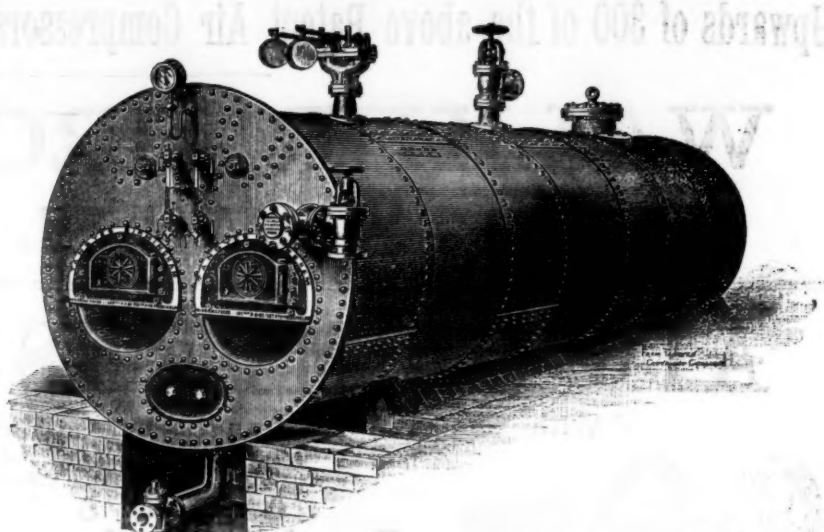
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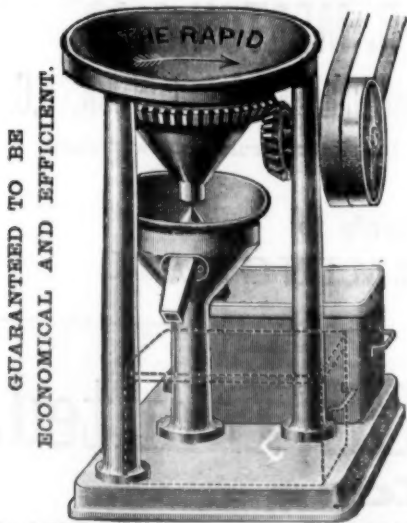
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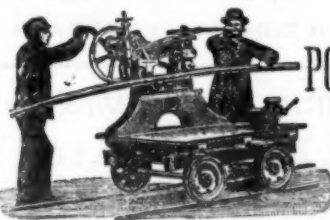
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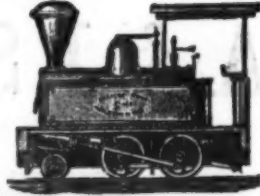
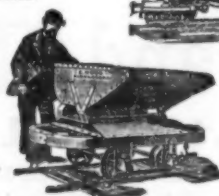
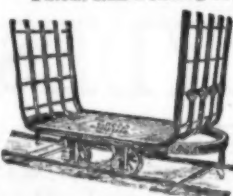
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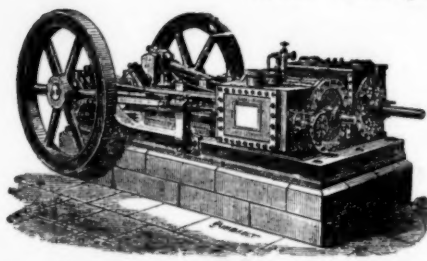
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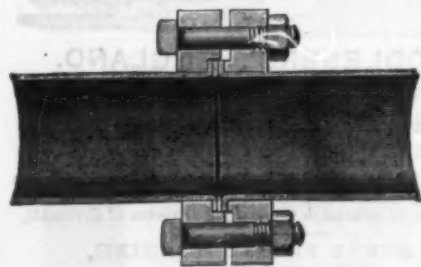
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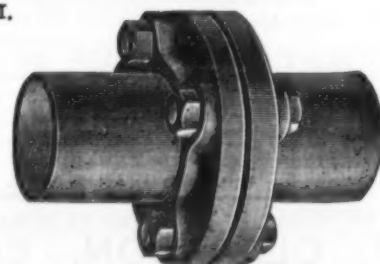
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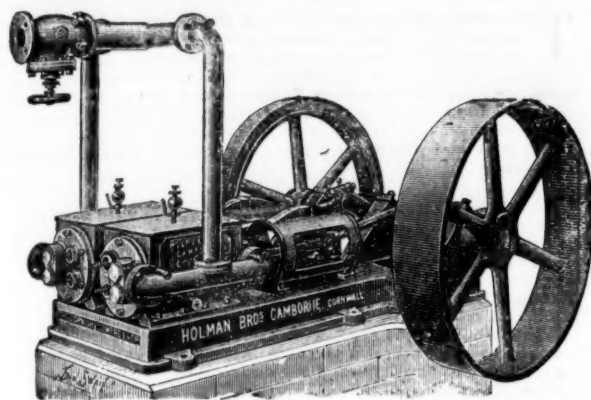
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FIRST
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Highest Award,
Mining Institute
Contest, 1881.



FIRST
SILVER MEDAL
Highest Award,
Royal Cornwall
Polytechnic
Jubilee Exhibition
Contest, 1882.

Three Makers
represented.

Five Makers
represented.

AWARDED SILVER MEDAL INTERNATIONAL
INVENTIONS EXHIBITION, 1885.

RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS**, equal to five times the Speed of Hand Labour

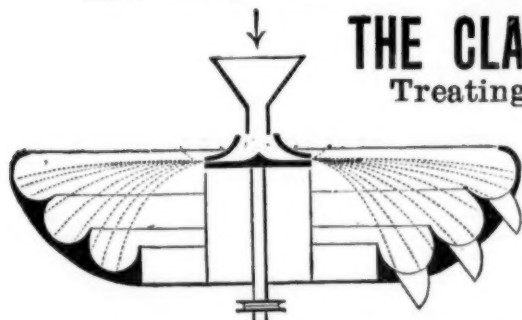
At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES**, and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

Estimates for **ROCK BORING PLANT** and **GENERAL MINING MACHINERY** on Application.

London Representative: Mr. E. M. TOUZEAU, Leadenhall Buildings, London, E.C.

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Terms for Experimental Concentration, and for Supply of Machines on Application.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

- 3492 Thomas Lowe, Top Mill, Old Radford, Nottingham. - Improvements in special composition for preventing incrustation in steam boilers. - February 19.
- 3495 George Jackson Churchward, 13, Gloucester Terrace, Swindon. - Improvements in steam traps. - February 19.
- 3510 John Anderson Ormerod and Joseph Wood, 17, St. Ann's Square, Manchester. - Improvements in carding engines. - February 19.
- 3521 William Buck, Shrub Hill, Worcester. - Improvements in regulating the compression and ignition of the charge in gas or oil engines. - February 19.
- 3535 Robert Harwood, 8, Quality Court, Chancery Lane, London. - Improvements in or relating to steam turbines. - February 19.
- 3547 Henry Martin Allen, 77, Chancery Lane, London. - Improvements in the construction of smoke-consuming and draught-increasing attachments for fuel burners. - February 19.
- 3585 Wilfred L. Spence, The Elms, Seymour Grove, Manchester. - Improvements in governors for steam and other engines. - February 20.
- 3613 Wallace Fairweather, 61, St. Vincent Street, Glasgow. - Improvements in furnaces. - February 20.
- 3618 Griffith Griffiths, Blaenau, Festiniog, North Wales. - Turbine. - February 20.
- 3620 John Gilmour, 98, Buchanan Street, Glasgow. - Improvements in or relating to filters for filtering or purifying the feed water of steam boilers and for other like purposes. - February 20.
- 3627 William Houghtaling, 77, Colmore Row, Birmingham. - Improvements in steam engine indicators. - February 21.
- 3629 Alfred Julius Boulton, 315, High Holborn, London. - Improvements in adjustable wrenches. - February 21.
- 3672 Holman Means Anderson and James John Barkley, 4c, Southampton Buildings, Chancery Lane, London. - Improvements in lifting jacks. - February 22.
- 3680 Kenneth Leslie Skinner, Norfolk House, Norfolk Street, Strand, London. - Improvements in and connected with packings for car axle boxes. - February 20.
- 3702 William Chorley, 14, Western Street, Leeds, Manchester. - Improvements in machinery for the compression of air or other elastic fluids. - February 21.
- 3712 John Hawthorn and John Pemberton Liddell, 5, John Dalton Street, Manchester. - Improvements in and applicable to drying cylinders. - February 21.
- 3714 James Weir, George Weir, and John Richard Richmond, 87, St. Vincent Street, Glasgow. - Improvements in steam boilers. - February 21.
- 3745 Richard Herbert Radford, 15, St. James's Row, Sheffield. - Improvements in steam generators. - February 21.
- 3797 Louis Brennan, Woodlands, Gillingham, Kent. - Igniting the charges in gas engines and oil engines. - February 22.
- 3828 Alexander Basil Wilson, Holywood, Co. Down. - Construction of steam boilers. - February 22.

SPECIFICATIONS PUBLISHED.

2519, Boulton, treating metallic ores, 1893; 2401, Mirza, steam engines, 1893; 2625, Fitchey, steam boilers, 1893; 2577, Mills, manhole covers for boilers, &c., 1893; 2761, Kappa and Jaeger, rotary motor, 1893; 2893, Germain and others, asbestos steam packings, 1893; 2947, Brown, water gauges for steam boilers, 1893; 2729, Swaine and Harrison, furnaces, 1893; 2968, Lindsay, friction clutches, 1893; 2406, Downing, furnace bars, 1893.

The above specifications published may be had of Messrs. Rayner and Company, 37, Chancery Lane, London, at 10s. each including postage.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

* * We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Trial Shafts, March 12 (Sunder). - For sinking about 10 trial shafts on the site of the proposed Cray reservoir dam, near Cray, in the county of Brecon, 7 feet 6 inches by 7 feet 6 inches in the clear, average depth about 30 feet, for the 8 shanes Town Council. Particulars and forms of tender may be obtained at the office of the Waterworks Engineer, Guildhall, Swansea.

Engines and Tenders, March 14 (London, E.C.). - For the supply and delivery of four locomotive engines and tenders for the Mexican Railway Company (Limited). Specifications with conditions and forms of tender to be obtained at the company's offices, 45, New Broad Street, London, E.C.

Girders, March 20 (Brighton). - For the supplying and delivering on rail at Brighton Railway Station, for the Brighton and Rottingdean Seashore Electric Tramroad Company, of steel lattice girders, rolled joists, cover plates, bolts, rivets, tie-rods, coupling-boxes, and rail struts, two traverse tables and erected deal rail packings. Drawings to be seen and specifications obtained at the offices of Mr. R. St. George Moore, A.M.I.C.E., 17, Victoria Street, Westminster. Tenders will be received by Mr. Magnus Volk, acting secretary, Madeira Road, Brighton.

Railway Stores, March 21 (Dublin). - For the supply of various railway stores for 18 months from April 1, for the Dublin, Wicklow, and Wexford Railway Company. Specifications with forms of tender of Mr. H. W. Mansell, secretary, Westland Row Terminus, Dublin.

Bridges, March 23 (Winchester). - For the reconstruction in steel and brickwork, of four arc-and bridges, over the London and Basingstoke Canal between Fleet and Winchester.

Sinking Pits (Aberdeenshire, Mon). - For the sinking of two pits near Aberdeenshire, to the steam coal measures. For particulars apply to Messrs. John Lancaster and Co. (Limited), Baines, Mon.

Sluice Valve, (Manchester). - For the supply of one 24-inch sluice valve for the Waterworks Committee. Plans and specifications on application to Mr. T. H. G. Berrey, Waterworks office, Town Hall, Manchester.

Stores, (Glasgow). - For the supply of stores for one year from April 1, for the Farnham Oil Company (Limited), 24, St. Vincent Place, Glasgow. Specifications and forms of tender on application at the office.

Construction of Railway (Madrid). - The Secretary of State for Foreign Affairs has received from Her Majesty's Ambassador at Madrid, a copy of a royal decree, inviting tenders for the construction of a railway from Manila to Taal by Calamba and Batangas. The decree can be seen at the Foreign Office, S.W., on week-days between 11 and 4.

Driving Stone Drift, (Aberkington). - For driving a stone drift 150 yards long. For full particulars apply to the Manager, Broomhill Colliery, Aberkington.

FOREIGN CONTRACTS.

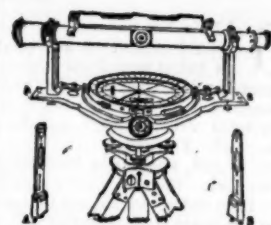
Steel Pipes, March 15 (Durban, Natal). - For the supply and delivery, f.o.b., of 4900 feet of 31 inches and 1800 feet of 18 inches lap-welded mild steel pipes, in lengths from 14 feet to 18 feet, with Kimberley joints, for the Corporation of Durban. Details, general conditions, specifications and quantities, with forms of tender, may be obtained of Mr. W. H. Radford, C.E., consulting and representative engineer to the Durban Corporation, Angel Row, Nottingham, on deposit of £2 2s., which will be returned on receipt of a bona-fide tender. Sealed and endorsed tenders in duplicate must be delivered at the office of the agents to the Durban Corporation, Messrs. Webster, Steel and Co., 5, East India Avenue, Leadenhall Street, London, E.C., by 15th inst.

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Gold Medal Awarded Mining Exhibition, 1890.
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OUR INQUIRY COLUMN.

TO CORRESPONDENTS.

Correspondents will please take note that all communications will be future be answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

QUERY.

R. T. - Will some reader kindly furnish me with the names of a few London firms who buy lead ore.

REPLIES.

T. B. - Will enquire, and advise you next week.
J. A. - We advise you to wait.
H. L. - Of the amount received 85 per cent. is profit.
A. D. - They are not valuable.
C. S. - We do not think matters will become worse.
S. T. - Prospects are rather promising.
X. Z. - Due the 25th of this month.
F. T. - Payable quarterly in January, April, July, and October.
E. L. - They are fully paid.
MENTS. - Yes.

VERO. - The company is now in liquidation.
BOOK ON W. AUSTRALIA. - "The Mineral Resources of Western Australia" by Albert F. Oliver, F.R.G.S., price 2s., The Mining Journal, 15, Finch Lane, E.C., and 3, Dorset Buildings, Salisbury Square, E.C.

J. J. - Declined with thanks.
C. A. - They have not a London office.
SUBSCRIBER. - Crystal Palace, 1890.

CONSTANT READER. - 1. Amber is a fossil resin, supposed to be a product of pinus succinifer and other coniferous trees. - 2. An anomalous magnet is one possessing more than the normal number of poles. - 3. A spark tube is one used as a gauge or test to determine when the exhaustion of the vacuum chamber or bulb of an incandescent lamp is sufficiently high.

MOPPA GOLD FIELD. - The Kapunda Herald of January 19 says: - "Things at this field remain about the same. Men are leaving, but their places are being taken by others, and gold is still being found in small quantities, though some of the diggers occasionally do very well for a few days. A singular, and should be an encouraging, fact is that so far as known not a hole has been put down without at least colours being got. The scarcity of water is being greatly felt, the washdirt having to be carted to the Greenock Creek, a good mile and a half away. Three-halfpence per bag is charged for carting, which is rather stiff if only colour is obtained, but with the little carting to be done it would hardly pay at less. Some of the diggers cart their own stuff. Several holes have been put down in the south-west corner of the section, and good colours obtained, and it is believed that the gold runs into Fitzgerald's property. One digger sank in the old road near the district road, and is reported to have done fairly well. Next week reefing will be started. There are several reefs on the property which are considered to be more keenly looking than those seen by Mr. Parkes (Inspector of Mines)."

COOLGARDIE AND ITS DISCOVERY.

By ALBERT F. CALVERT.

GOLD is the panacea for many human troubles, and yet it would seem that an ever-increasing quantity of bullion is being won from the earth at this present time when distress and distress are rife throughout our land. The United Kingdom itself has not produced a very large quantity, and yet the total value, though variable, is not so small as is generally imagined. For example, in 1888, £30,000 worth was taken from British soil, whereas in 1885 only 3½ ounces, valued at £14, were extracted. Between 1880 and 1892 the total amount found in our Isles was about £70,000, nearly all of which was taken during the five years succeeding 1888. Now, in this same period, our colonies and possessions produced gold to the value of nearly £90,000,000 sterling.

From some inscrutable cause gold is nearly always found in the wildest and most inaccessible parts of the globe, hence it needs men of special hardihood and courage to find it. The most recent discovery—Coolgardie—lies in a remote district within the proclaimed territory of Yilgarn, in Western Australia.

There are many who imagine that reefs containing untold wealth are stumbled on by chance. In fact, the doctrine of chance is popularly applied to everything connected with gold mining. This is a vast mistake. Doubtless, luck controls most earthly matters. Napoleon might have won the battle of Waterloo, if it had not rained in the morning of the battle, so that he could have got his artillery into position, and started operations at six, instead of 11 in the forenoon. Somebody says, "Give a man luck and throw him into the sea," meaning that his luck will save him in the greatest extremity.

But to return to Coolgardie and its discovery. Messrs. Bayley and Ford were the fortunate prospectors who struck gold in this remarkably rich district. They were by no means members of the unemployed, who had wandered out "on spec," but practised gold miners, and they were well provided with means, Bayley having won 1000 ounces from a claim at Nannine. Being hard working, skilled pioneers, they were rewarded. From this it may be deduced that luck and industry are often synonymous terms.

The manner in which the wealth of Coolgardie was laid open is as follows:—In 1887 the two partners accidentally met at Southern Cross. The prospects of the district seemed to have pleased Ford, but Bayley was dissatisfied, and went to Roebourne and various parts, finishing up at Nannine, where he met with considerable success. Several years afterwards Bayley encountered his fellow prospector. After comparing notes, they agreed to become mates, and made for Mount Kenneth, about 250 miles N. E. of Perth. Here they met with very hard lines, for they lost their horses through poison, and there was no alternative but to walk back to Newcastle. This was an arduous task, and Mr. Bayley tells us that the farmers they passed were highly amused at their disaster. However, the laugh is on their side now, and doubtless the two Coolgardie pioneers and capitalists look back with satisfaction to the days of their privations, when they contemplate their swelling bank account, and their world-wide reputation as the discoverers of one of the richest reefs on earth. Although the find is associated with the name of Bayley, it must be noted that Ford is quite as much entitled to the credit of the discovery. It happened thus. Ford was the domestic partner. He watched the camp and field, while his friend went periodically to Southern Cross for supplies. Thus the people of the township knew Bayley alone, and Bayley's name came to be associated with Coolgardie. Mr. Ford, however, may console himself, for he holds an equal share of the profits. It is not always, however, that the discoverer's name is branded on his discovery. Columbus, for example, is credited with having found America, while the Florentine mariner, Amerigo Vesputi, gives the Continent its title. Columbus has the doubtful consolation of having adorned the title of the Columbian Exhibition at Chicago.

The partners, having reached Newcastle, bought a fresh turn-out, and started for the Murray country, where some gold had been got by one Speakman. Here they hung about for a couple of months, but met with little to reward their pains. They confess to have been desperately sick of gold mining by this time, and rather disposed to throw up the job altogether. However, they were not easily daunted, and having struck Southern Cross about June, 1892, they supplied themselves with eight weeks' stores, and again took to the road. They had no map of the country, and trusting to luck struck out about 14 miles north of Hunt's track, which was almost obliterated, having been marked out 30 years previously. After travelling some 40 miles they saw the traces left by Lindsay and his camels, but the trail was soon lost. Then they came close to the veritable Coolgardie, which was to make their fortune, but turned back for want of water, and made for the Guarlbine Rock, where they refreshed themselves for two days. These clever prospectors, however, had noticed certain auriferous signs in passing over the arid tract, which they had been obliged to leave, and determining to revisit it took a north-east route. Now, here is where their luck comes in. They never got there. The boggy country round Guarlbine was their salvation. Twelve miles a day was the most they could accomplish, and this with great difficulty. They had now left Southern Cross about a month, and were alone in an almost waterless desert. This was even worse than their forced return—horseless and miserable—from Mount Kenneth, and it would have been little wonder if they had taken a back track forthwith. Most men would have done so. It so happened, however, that they came on a native well—a mere hole in the rock which would hold some 700 gallons when full. They refreshed themselves, glanced round, and saw strong signs of gold. There was plenty of grass, so they turned out their horses, and started "specking" across the flats.

"One morning before breakfast," says Mr. Bayley, "while going after horses, I picked up a half ounce nugget on the surface, and before dinner we obtained 20 ounces by the same means. That spot was about 200 miles from the present Reward Claims. In about a month by specking, and a little dry blowing, our gold consisted of about 200 ounces. After a month our rations ran out, and we made tracks for Southern Cross to replenish. We did not report the find, but went back to the old workings, and on a Sunday afternoon, while fossicking around, we struck the reef. That evening we picked up about 60 ounces of gold, and on Monday pegged out a prospecting area on the reef. That morning a party of three men came on the scene. They had followed us from Southern Cross. That day we obtained 300 ounces odd from the cap of the reef. The party who had followed us stole about 200 ounces from our claim, so we had to report it for that purpose. I went into Southern Cross carrying 534 ounces, which I showed to the Warden on September 17th. The field was then declared open.

"After another two days we had collected another lot of gold, amounting to 528 ounces. I conveyed that to Southern Cross, and a fortnight after returning to the field had to make another

trip there, escorting 642 ounces. All we found was right on the surface, and all we did was to knock the stuff out and dolly it with a pestle and mortar. There were 6 cwt. of tailings left. After the gold referred to had been extracted from the quantity of stuff, we obtained a further amount of 278 ounces. Prices ranged from £3 18s. 6d. to £3 19s. 6d. We got a little over 2000 ounces of gold altogether out of the claim. We only had a five-acre lease of the Reward Claim. We sold the latter to Sylvester Brown. The lease was jumped, but we won the case. Mr. Brown paid £6000, but we retained an interest of one-sixth. My mate (Ford) and I hold 4000 shares between us. I am certain there is a tremendous future before the mine, and will not sell one single share at present prices."

In a few weeks they picked so much gold off the surface that they naturally expected soon to be millionaires, if left undisturbed. It chanced, however—for chance and luck are much the same, only the latter has not been fitted with a suitable verb—that four Irishmen came along with a native guide, who had told them about a golden mountain a little further on. They camped some little time with the two partners, and caused them much trepidation lest they should change their mind and give their patch a turn over. But the Hibernians, with, no doubt, a pitying glance at poor deluded Bayley and Ford, passed on to their golden mountain. Thanking their stars that they were not discovered, the partners again started to work; but their stock of provisions gave out, and Bayley had to travel to Southern Cross for supplies. Here a strike was in progress, and when Bayley started back some of these fellows got horses and followed him. They mistook their way, however, and Bayley got back unscathed to his patch; but, fortunately for them, they chanced on the Irishmen who were returning without the black boy, and without having struck the golden mountain. These men ingeniously told the strikers—whom they met at Guarlbine—where the two partners were located. "Then they came on us," said Mr. Bayley to an interviewer. "But for these Irishmen," he added with a sigh, "Coolgardie would not have been found for another six months."

The luck of the discoverers naturally excited the cupidity of the new comers, and acts of brazen robbery followed. "There were two Cockneys and a Dane," remarked Mr. Bayley contemptuously—"they did not even know how to peg out a piece of ground, but they knew how to steal at least 300 ounces of gold."

On the Reward Claim, Bayley found a 45 ounce nugget one evening after a shower of rain. It was sticking out of a reef which stands 30 feet high, and can be seen miles away. Bags and bags of nuggets they seem to have picked up, so as nearly to fill up their tent.

So much for the discovery. We will not attempt to go into figures in this very short and imperfect sketch. Suffice it to say, that from the date of its discovery up to the present, Coolgardie has justified the most sanguine hopes, not only of the discoverers, but of all those fortunate and intrepid men who followed them to the field, and, having endured its hardships, are now reaping the golden harvest.

Mr. Sylvester Brown has my warmest congratulations for having recognised the wealth of Bayley's, and for having come forward in the nick of time with capital to develop its riches. Then Messrs. Hannan, Cashman, Brockman, Pearce, McCulloch, and many others have fully demonstrated to the public that Coolgardie is one of the richest fields in the world.

The water difficulty still remains, but I feel assured that the Western Australian Government, with the able assistance of Mr. Renou, will take advantage of all the resources of science in order to surmount it. Unless this obstacle is removed by sinking wells, forming catch-dams, and supervising the consumption, Coolgardie is apt to become a death-trap. The hunger for gold will be followed by thirst for water, and instead of proving a blessing will prove a curse. How can it be otherwise, when men rend of the tons of gold which the field contains. Lord Percy Douglas, who is now on the spot, writes to the Editor of *Calvert's West Australian Mining Register* in the course of his letter, dated November 10, 1893, speaking of Bayley's Reef:—

"Before leaving Coolgardie I had the pleasure of seeing over Bayley's Reef, this being done before its sale to the syndicate. At that time Bayley and Ford, the discoverers, had found 2500 ounces, though where they found them it was hard to understand, as there was no shaft or crosscut on the reef, and no hole of any sort deeper than a few feet. I shall never forget the sight; it settled my career, and I don't think I shall ever follow any other avocation but that of a miner, for there, on this reef, instead of, as one usually sees on ordinarily rich reefs, specks and perhaps here and there small nuggets of gold, on Bayley's there were veins—in fact, literally outstanding bars—of gold, so much so that if Mr. Bayley had only given me leave to do an hour or two's work on it, and take the results, my trip to the old country and back to West Australia would have cost me nothing, and I warrant I could have had a pretty good time too."

If a member of the English aristocracy is thus smitten with the *auri sacra fames*, will not thousands of men be disposed to follow his example, and migrate to Coolgardie? Water must be provided, or they must perish. It is present below the surface, and science must tap the subterranean reservoirs; it comes from above, and prudence must catch and hoard it. I have at present in the Press a book which deals at length with Coolgardie, giving the latest particulars, and the opinions of some of the most practically skilled experts in the world. It contains the latest map issued by the Department of Lands and Survey, also diagrams of the gold trophies taken from Bayley's Reward claim.

It was not my purpose to do more than draw attention to the present wealth and future possibilities of Coolgardie. Western Australia has only very recently been deemed worthy of notice as one of the most promising of England's Dependencies. Truly her physical features and geographical position combined to place her in the background. Population was denied her, and she had to put up with the sorry makeshift of convicts. She was altogether unlovely. But now it is different, for she has unbosomed her golden dowry. Possibly she may be said to hold out a bribe and to appeal to men's avarice. Still this is just what has made other countries great. The truly avaricious will be duly punished hereafter, according to the Dead Man's song in the "Shepherd's Calendar"—

"Ladies full of melted gold
Were poured adown their throats."

Let us hope this will not happen to any of those who may visit the newly-found gold field of Coolgardie. May the bright metal find its way into their pockets instead!

THE MINING CONCESSIONS IN MEGUI.—Captain Menzies, of Singapore, who obtained the grant for a tin mining concession of all the tin bearing areas not occupied by native miners in the Malacca township is, from all accounts, working the concession very profitably. He only commenced operations in October, 1892, and during the first six months succeeded in turning out 7½ cwt. of tin, against 367 cwt., the quantity obtained during the same period in the previous year. The Local Government have been so pleased with his success that besides permitting to purchase the output from the neighbouring native miners, they intend to renew his lease for a further period of 21 years.—*Indian Engineering.*

THE AUSTRALIAN DIAMOND MINES.

Their position and extent.—Unsuccessful early operations.—Difficulties will be overcome.—Inspection and report by an Expert.

(FROM THE MELBOURNE AGE.)

THE Australian diamond mines, or the district in which the main body of diamondiferous ground has been explored, is situated within the delta formed by the Gwydir River and its tributary, the Horton or Big River, about 7 miles from Bingara, a small township 90 miles from Tamworth and 400 miles north of Sydney. The zone, which is not a wide one, and which carries diamondiferous ground, extends as far as Inverell in the east, but the richer fluids and permanent deposits are found within the Bingara districts.

Early accounts.

The earliest accounts of the discovery of Australian diamonds date too far back into the regions of aboriginal romance to be worthy of credence, but the first reliable reports which were at least valuable from a scientific point of view were those prepared by the Rev. A. E. Clarke, the well-known geologist, and Professor Liversidge, of the Sydney University, who visited Bingara in June, 1873, and read an interesting paper before the Royal Society of New South Wales in October of the same year. This paper was afterwards published, and gives an interesting description of the Australian diamond fields and the discoveries made up to the date of the professor's visit. From this report, and from the prospecting undertaken by various parties at Bingara during the last 12 years, we are enabled to judge of the extent of the diamondiferous soil and its nature, which bears a similarity to that found on the Vaal river diggings, near Priel, in South Africa, and that of the district of the Bagagem Mine, in Brazil. It is alluvial in nature, and consists of stratified layers of pipe clay of various colours, and small well rounded pebbles, of jasperoid rocks, shales, sedimentary rock and fine sand containing topaz, zircon, tourmaline, sapphire, garnet, gold in fine scales, black magnetic iron, brookite, fossil wood, &c., and the diamond, which appears to be irregularly distributed. This wash is found overlaying a basaltic formation, sometimes greatly decomposed; whether this basalt forms the true bed of the drift has yet to be determined. The depth of the wash varies from 18 inches to 8 feet, and is found from 1 foot to 8 feet deep, but as the ground rises it has to be followed sometimes 500 feet under the hills.

Their size and value.

The diamonds occur in various sizes from 1-16th of a carat to 5½ carat stone, which latter, according to the publication of the Government Statist of New South Wales (1887), was the largest diamond up to that date that had been found in Bingara; but when it is understood that the total amount of ground washed in all the districts is practically not equal to the work done by one single washing gear in Kimberley in two months, we can well believe that no perfect knowledge of the true worth of the washdirt can possibly yet be arrived at. In the hand washing and the primitive methods of saving diamonds adopted by the Australian miners the large stones are certainly lost. In South Africa the class of gem found in the alluvial workings is always much finer than those taken from the mines, and this applies to the stones discovered in the Bingara drift, which is found to contain a large average of high class stones that bear the singular property of being much harder than any known diamond, and possess a remarkable absence of cleavage. The general returns from the washing up to date resulted in an average of 1½ carat to the load, and the associated gold gave a return of 2 dwts.

Exploitation by Melbourne speculators.

No actual development of the fields was undertaken until about 11 years ago, when a party of Melbourne speculators first undertook to systematically mine for diamonds; but after a record of failures, which is generally the fate of pioneers, the enterprise was ultimately abandoned. Three years ago, however, another effort was made by some members of the same party from Melbourne to commence operations on a new basis, but after a considerable outlay of capital the insurmountable difficulty of obtaining a sufficient supply of water on the ground for extensive washing purposes temporarily stopped the work; but it is believed that shortly all obstacles will be overcome, and a regular system of working and development on the latest principles adopted by South African miners will be introduced. The property owned by this party, known as the Australian Diamond Mines Proprietary, and with which is associated Mr. Thomas Mercer, C.E., of Bingara, who has resided on the ground for nine years, comprises an area of 320 acres, all of which has been carefully prospected and the extent of diamondiferous wash, so far as surface operations are concerned, exactly ascertained. The history of this property carries with it the vicissitudes usual to prospecting in new country, and over £20,000 have been expended in dead work, the only monument to the zeal of the enterprising syndicate being the large collection of mining material now lying on the ground. As stated before, the absence of a sufficient supply of water has militated against the success of the venture and has checked the development of the area. The droughty nature of the district was proved in the inefficiency of a large dam specially built between the creeks, and the failure of a water auger was a disappointment not reckoned upon, as the indications led the syndicate to believe that water would be found in sufficient quantities to start the machinery. A more recent report by Mr. Boulthill, of the New South Wales Mining Department, mentions that there is no possibility of striking water at any point within the diamondiferous area, though there may be a sub-artesian supply. Operations, however, will be shortly commenced to bring the water from the Horton or Big River to the mines, or run the wash dirt to the water. The river is distant three and a half miles from the nearest claim, and at about 500 feet lower level.

The opinions of the late State Mining Engineer.

In January, 1891, an expert, in the person of Mr. E. G. Woodford, M.I.M.E., late State Mining Engineer, Transvaal, was despatched from South Africa to inspect and report upon the property owned by the Australian Diamond Mines Proprietary at Bingara. His report submitted to several South African capitalists residing in London verifies all that is claimed for the fields. Mr. Woodford states that, with an assured water supply, successful operations could be carried on with still greater possibilities for the future. It may here be mentioned as a fact noticed by experts who have visited the claims of this syndicate that the diamondiferous wash overlies a basaltic formation closely resembling the same occurrence in the Jagersfontein Mine, in South Africa, where, underneath the basalt, were discovered the larger stones. These indications at Bingara are such as would warrant an exploration through the basalt by means of a Diamond Drill, as possibly valuable finds may be met with at a lower depth.

Other leases.

Amongst the number of leases adjoining the property of the before-mentioned syndicate is that known as Monte Cristo, a claim of 20 acres, at present worked by Captain Rogers, an old Ballarat miner. Some valuable finds have been made by him, but the want of adequate machinery and appliances for washing, as well as the necessary water, makes it difficult to give a truthful estimate of its value. There are some other leases, but none is being worked with any degree of skill, so their worth is not ascertainable. There seems to be little doubt, however, that the Bingara diamond fields of New South Wales are destined shortly to take a prominent place in the annals of mineral discoveries, and when proper development, under the guidance of careful and experienced miners, is afforded them, we may expect to hear of returns that will vie in value with the yields of the gold, silver, and other mineral fields of Australia.

SPECIAL CORRESPONDENCE: COLONIAL AND FOREIGN. MINING IN ASTURIAS (SPAIN).

(FROM OUR OWN CORRESPONDENT).

GIRON, 26th February, 1894.

LEAVING the Navia, with its golden treasures, and returning to Navelgas, an immense group of ancient workings is met with, probably of the Roman period.

Respecting these, Schulz, in his *Geological Description of Asturias*, says as follows:—"Worthy of special mention as one of the greatest is the Roman working in the divisory hill between Naraval and Navelgas, 2 leagues south of Luarca, where the ancients exploited by open face working two lodes nearly parallel, and very near to each other, both 600 metres in length, with an average width of about 40 and a depth of 50 metres, so that these workings have taken out of that mountain about 2,000,000 cubic metres of ground, leaving no little heap to be seen to-day. At the top of the hill there are some metres of red transported diluvium.

"The walls of the excavation are composed of grauwacke, in some places quartzose and schistose, like the surrounding formation; in the bottom of the western working, which crosses the whole hill, are to be seen precipitous masses of Saccharoidal limestone and traces of amphibole.

"On the upper part of the hill the remains of two small reservoirs are seen, which received their water from a leat (Spanish) league in length, taking it from the pasture ground of Businan and Folgueras, where the River Naraval takes its rise.

"In 1844, whilst work was carried on in the widening and mending of the road from Luarca to Cangas, which passes to the west of these workings, a nugget of gold was found weighing 52 ounces; a few days' later several others were found weighing from 1 to 2 ounces, and successively many more, more or less small—i.e., of the value of from 10d. to \$4, and always after heavy rains very small ones are found all in alluvial detritus of a brown or ashy colour, which, in several places covers the firm ground in that hill, its thickness being from 4 inches to 2 metres, but the gold is never in sight, except after abundant rains.

"The space in which this gold is usually found does not exceed 200 metres in length along the line of the road above referred to, and it will have a width of from 40 to 60 metres half way up between the bottom and top of the hill, and its culminating point is where the ancient reservoirs are. The said hill does not exceed 800 paces in a north and south direction, and its total width from the ancient excavation, which is on the east to the small stream on the west, will be about 130 metres.

"A first investigation, which was made in 1846 by means of three trenches from east to west, did not discover any trace of gold in the bed-rock, which is here quartzitic grauwacke, but this does not mean to say that other investigations higher up will not find it.

"About a mile to the north, very near to Naraval, the ruins of a castle, called Monjelon, exist, in which Roman gold coins have been repeatedly found."

Since Schulz's day occasional large nuggets, coming from no one knows where, have been found.

One of these is referred to in a book called *The Highlands of Cantabria*, page 339, as follows:—"Some years ago in this district, a poor and forlorn old widow was driving in her cattle from the pasture. The boys of the village, thoughtless and idle, considered it sport to tease her whenever an opportunity offered. She had borne all very patiently until this occasion, when at last, losing her temper, she determined to retaliate. She picked up several stones to throw at them. Amongst them was one that attracted her attention, owing to its great weight. This she retained. On examination it was found to be a large nugget, which was afterwards sold for several hundreds of pounds."

Another fine one was found three years ago, and an old man of the neighbouring village has his special hunting ground on the spot after torrential rains, where he invariably collects small nuggets, which he sells to the goldsmiths.

All this refers, of course, to gold that can be spotted on the ground; no one seems to have thought of that gold, which being too small to be seen amongst the debris has been allowed to lie, and be carried down into the lower ground, where it will be found. These lower grounds are formed of the alluvium filling them through the lapse of ages. They are extensive, and from panning made by the writer are proved to contain gold in abundance; but their surface to-day is fine fields and meadows, and here the difficulty begins for systematic hydraulic mining. The whole district would have to be purchased, and although the land is cheap a heavy outlay would have to be made before results could be touched. Still, if it were done, a surprisingly satisfactory result would in the end be obtained.

The absence of little heaps from the ancient workings, and the denuded and piled appearance of the rock masses overlying their working bed, point to the fact that they worked by hydraulic mining, that their debris forms a portion of the alluvium ground, and that they knew as well as we do to-day the effect of this system of working on soft and friable masses.

There is at the head of one of the workings a gallery having the saccharoidal limestone as one of the walls, driven in ten metres. Here it changed its direction, and the working was carried down by a steep drift. The castle in summer found this a pleasant shelter. Some of these determined to explore the bottom of the drift, but failed to return. Their owners, finding it a serious matter to thus lose their property, resolved that it should not occur again, so blocked it up with debris to the level of the gallery floor as it exists to-day. It would be the solution of an interesting problem to have this cleared out, and get to where those mighty ancients left off.

This gallery is called "La Cueva del Mouro." It has its legend, which may be shortly noted as follows:—On Saint John's eve a tremendous billy-goat (*Ast. Mouro*) comes to the mouth of the cave. Immediately afterwards, sitting on one of the great masses of rock, appears a beautiful maiden, singing a melancholy dirge, and combing her lovely tresses (the Lorelei of the Rhine without the river near). The danger of approach to this maiden is such that the country people give the district a wide berth on that eve. The origin of this portion of folk-lore is lost in the night of history.

WESTERN AUSTRALIAN GOLD FIELDS.—Lord Percy Douglas and the company's engineer have arrived at Coolgardie with the machinery, and have already commenced selecting claims. The rainfall for 1893 was so abundant that there will be no trouble as regards water. The £5 shares in the Coolgardie Gold Mining and Prospecting Company, which was formed in Adelaide recently, are selling in that city at £70 per share.

DEAFNESS AND NOISES IN THE HEAD cured at the patient's home. This Illustrated Edition also treats on the cure of Catarrh, Bronchitis, Asthma, Extreme Stoutness, Indigestion, Dyspepsia, Rheumatism, by Medico-Electricity.—4d. G. R. BRIGHT, Publisher, 8, Tavistock Place, London, W.C.—[ADVT.]

THE MINERAL WEALTH OF HUELVA.

Being an Illustrated Article on the History of this District from the earliest times.

(Specially written for *The Mining Journal*.)

V.

(Continued from page 233).

THAT Tarshish, on the other hand, was reached from the Mediterranean has been deduced in the following ways from the Bible itself. (a) In speaking of the Solomon-Hiram sailings to Tarshish, no port of departure is specially mentioned, the natural inference being that they started from Tyre or a neighbouring harbour, but when sailings to Ophir are spoken of, it is thought necessary to mention that these took place from the Red Sea. (b) All the articles said to have been picked up by the navies of Tarshish could have been picked up by them in those days on the Mediterranean. In Solomon's times they brought home gold, silver, ivory, apes and peacocks. The abundance of gold and silver in Spain was fabulous and the ancient references to the mineral wealth of Spain are most extensive. An interesting one in Strabo, book 3, already cited, says "Turdetania (Tartessus or Andalusia) and the surrounding districts surpass so entirely in this respect, that, however, you may wish, words cannot convey their excellence. Gold, silver, copper and iron, equal in amount and of similar quality, not having been hitherto discovered in any other part of the world." Apes exist at the present day in the North Coast of Africa, elephants were used there even much later than the times of Hiram, as Hannibal is known to have imported them to Europe, and peacocks, of course, still exist in all Mediterranean countries, although they must have been far more plentiful in ancient times than now. Pliny in Book X, Cap. 23, says:—"The orator Hortensius was the first Roman who had the peacock killed for the table. . . . M. Aufidius Turco (a.c. 60) was the first who taught the art of fattening them. From this source of profit he acquired an income of 60,000 sesterces" (from £500 to £800). Similarly, the products mentioned by Ezekiel, in the 27th verse of the 12th chapter, were all obtainable in Mediterranean countries, especially in Spain. (c) To reach Tarshish from Tyre it was necessary to pass the island of Cyprus. (d) Jonah took ship at Joppa, on the Mediterranean Sea, to sail for Tarshish. Fleeing "from the presence of the Lord," he would naturally endeavour to reach what were reputedly the furthest parts of the earth, and not Tarsus in Asia Minor, said by some to be this special Tarshish, but which is relatively quite close to Joppa. (e) The duration, three years, of the round voyage to Tarshish is just what it is estimated would have been spent on the trip from Syria to the western part of the Mediterranean under the circumstances of navigation then in existence and allowing reasonable stoppages for the purpose of trading. The route would have been a coasting one generally, and would most likely have been Tyre or other port to the South of Cyprus, hence to Crete, sighting probably the South of Asia Minor: from Crete the ships would be directed to Cape Bon, near Carthage, passing the South of Greece and Sicily on the way, and from Carthage they would coast along the north shore of Africa to the Straits of Gibraltar.

Other arguments for connecting Tarshish with the Mediterranean are:—(a) The similarity between the words "Tarshish" and "Tartessus;" it being considered that the latter form is only the variation given by the ancient Greek and Roman writers to the former one. Now, were this definitely admitted we would have the district of Huelva forming part of the celebrated region, as the town of Tartessus was undoubtedly at the mouth of the Guadalquivir, and the country now known as Andalusia practically corresponds to the district called after that town. (b) Polybius (book 3, 24) gives us the conditions of three treaties made between the Romans and the Carthaginians, and the second of them, formulated in 349 a.c., according to some authorities, and according to others between 480 and 410 a.c., marks a line in the Mediterranean between Mastia and Tarsus, beyond which the Romans were not to pass westward nor to build towns. This name of Tarsus certainly approaches very nearly to that of Tarshish, and its use at a period so near that in which the Phoenicians held sway in the western Mediterranean is a most important factor in this discussion.

Lastly, Moses of Chorene, already referred to as writing about 450 a.d., extracts from a contemporary as follows:—"Broken up by Joshua, the Canaanites fleeing before their exterminator, passed to Akras, and navigated toward Tharsis, an event referred to by an inscription. . . . preserved in Africa till the present day. . . ."

This text has been much commented on, but it certainly is interesting, as showing that at those times the adopted opinion was that Tarshish was reached by the Mediterranean.

King Solomon and the Mining Industry.

Having now given the main headings of the arguments for and against the location of Tarshish in connection with the Mediterranean Sea, it is necessary to consider along with them a few observations on the extraordinary coincidence of the naming of places in the district of Huelva after Solomon, who is well-known to have given a most important impulse, not only to the general commerce of Tarshish, but more especially to its trade in metals.

The oldest contract on a large scale, of which we have authentic notice, is probably that which was entered into between Solomon and Hiram, King of Tyre. Solomon's determination as to the building of a temple and palaces surpassing in grandeur anything hitherto heard of, most naturally threw him into communication with the neighbour who, being at the head of a commercial nation, was better fitted than any one else to aid in the fulfilment of the great design. Although it would appear that Solomon was dependent on Hiram for a part at least of the labour required for construction, yet we can have no doubt that Hiram was chiefly called upon to supply the ornamentation and the materials for its execution. Gold, silver, and precious stones were profusely used, but the great bulk of the furnishings and accessories was made of brass. One altar of brass was 20 cubits long by 20 cubits broad and 10 cubits high. A tank of brass for the use of the priests was 10 cubits in diameter and 5 high, having along its brim two heavy rows of adornment, and was supported by 12 brazen oxen. Ten other tanks, with their bases for the use of the public were also set up. The doors were overlaid with brass. The pots, shovels, and all instruments were made of bright brass. In fact, everything was supplied "in great abundance, for the weight of the brass could not be found out."

Whence came all this brass? What mining district known to have been worked in ancient times could have supplied the copper for its manufacture? Cyprus may be suggested. It certainly was settled early by Phoenicians; but the Greeks never allowed them to obtain any preponderance there, such as we know they obtained in Tartessus. Why have the ancient writers restricted their mention of the working of the Cyprian Mines to the times of the Greeks and Romans, long after the existence of Solomon? We may be thoroughly certain that,

had the Phoenicians worked them in any tangible manner, that fact would have been chronicled amongst the other wonders attributed to this race. If the suggestion of Cyprus, therefore, cannot be admitted, the only choice left is that of Tartessus, or South-West Spain, and the only important copper mines, which still bear the evidences of Phœnician handicraft, are those of the district of Huelva.

That the purchases of brass made by Solomon from Hiram stimulated the copper production of those days, is a natural conclusion, and that this stimulation of the trade carried the name and fame of the person who caused it into the producing regions, may also be accepted. Now, if we find that the name of Solomon actually is, and for many centuries has been, applied to places in the mining district of Huelva, we certainly have strong reasons for believing that he was known and honoured there in ages gone by.

(To be continued.)

THE HANNAY ELECTRO-CYANIDE PROCESS.

REPORT BY PROFESSOR SMITH.

(FROM THE *Australian Mining Standard*.)

PROFESSOR A. MICA SMITH has presented to the Ballarat School of Mines a report upon the Hannay electro-cyanide process, full particulars of which were some time ago published in the *Australian Mining Standard*. He says:—"Attractive advantages of the process, as presented to us, are that the gold and silver are obtained directly as amalgams, and that the same cyanide is used over and over again. There is only one way, it appears to me, of arriving at a true opinion concerning it, and that is to put it to the test on the large scale. I think a small scale test of this process would not be sufficient, although a series of tests on a comparatively small scale might settle a number of important preliminary points, and confirm the work of the invention. Assuming that it will extract the gold, in whatever form, as claimed, the next most important question to settle is, how long it will take to treat the ore in quantity. This last point, from the nature of the process, could only be settled by an appeal to a large scale treatment. In the only case which I have heard of it having been tried on a large scale it was not a success; but this might happen with any process, and should not be allowed to prejudice us against it. It is unwise at the present stage to express any very decided opinion about a new process of this kind, which seems right enough in theory, and looks sufficiently plausible on paper; but I should scarcely expect to successfully compete, at least in its present form, with very simple, and, in at least so many cases, very effective process of MacArthur-Forrest. I think, nevertheless, that, especially in view of the instruction it would afford the students, the erection of a small plant would be of very great service. Referring now to the ordinary cyanide process, or MacArthur-Forrest process, it is, I believe, quite generally admitted that small laboratory tests upon 1000 grains or so are quite sufficient to warrant us in drawing safe conclusions respecting the treatment of the ore by the 1000 tons, and these laboratory experiments have to be made, whether the ore is subjected afterwards to a larger scale test or not. There is thus not the same need for a larger cyanide plant, although, if there were sufficient prospects of having such a plant kept employed it could be very easily erected, and at no great cost—say, four large tanks (one with false bottom) provided with tubes and taps, and a zinc filter, with plenty of room to place and work these. But, bearing our experience of the chlorination plant in mind, there is not much encouragement to erect another for cyanide treatment. So far as I know, we have never had any call for it. Notwithstanding this, I had hoped, long ago now, to have extemporised a small plant for treating 1 cwt. or so, making use only of such earthenware filter tubes as we have on hand, and this I still think would be quite sufficient for all present purposes, as well as serving a useful illustration for the students. The advantages claimed are as follows:—1. The gold is extracted directly from the ore without any preliminary roasting or other treatment. 2. The same chemicals are used over and over again. 3. The process efficiently extracts the gold and silver from the auriferous ore, whether refractory or free. 4. The precious metals are obtained at once from the amalgam in the metallic state, and no preparation or complicated chemical methods are required. 5. Any workable quantity may be treated in one vessel at one operation, and the gold obtained in a single day."

THE 1000 FEET REEF AT THE NEW QUEEN.—While no new reef has been recently discovered in the New Queen, it has, we understand, been demonstrated that the ground contains another payable reef, and this is not only of immense importance to the mine, but to the surrounding properties. About 12 months ago a reef of promising looking stone was cut at 1000 feet vertical, or 300 feet deeper than any other workings in the mine; and a small trial crushing was taken out, which resulted most disappointingly, the yield being somewhere about 8 dwts. to the ton. It was then found necessary to confine operations to the main line of reef, from which so much gold has been obtained this year. After some time had expired, work was again resumed on the 1000 feet reef, a drive being put in west towards the Brilliant Central. About two months ago, a crushing from the reef in the level gave about an ounce to the ton, and on Saturday week a crushing of something like 100 tons from the same reef was cleaned up for well over an ounce and a half to the ton, and it is, therefore, safe to say the payable character of the stone has thus been established. The reef, which is in a kindly formation, is from 12 to 15 inches thick, and the west drive has gone in on the hanging wall. It now seems that the life of the New Queen has been renewed, for it is almost certain the new reef will go right through the ground as the top formations have done, and the mine may be regarded as again commencing operations. Then there is the Brilliant reef still to go for. The new find dips north-east, and has the same lay as the top formations in the New Queen except that the grade is much steeper. It is held as likely, by some good judges that it is the bottom reef of the Victoria, and that its steep grade has caused it to be 300 feet below the other reefs where the New Queen cut it. The New Queen shareholders, almost all of whom reside in England and, of course, the most concerned in the find, but those interested in adjacent mines have also very strong reasons to rejoice. The Brilliant Central especially is happily situated, while Kelly's Queen Block, the Queen Cross, Marshall's Queen, the Bonnie Dundee, and others can scarcely be off the new find. The reef is equally as large and promising as the one now turning out so much gold, and being worked in the New Queen, Brilliant Central, and Kelly's Queen Block, the demonstration of its payable character must be considered one of the most important mining incidents of 1893. The clean up was on December 30, so that it was almost in the closing hours of the dying year that another great assurance of the continued permanency and prosperity of Charters Towers was given.—*North Queensland Register*.

MESSERS. GREGORY AND COMPANY.—Messrs. George Gregory and Company, stock and share dealers, of 5 and 4, Tokenhouse Buildings, Lothbury, have completed the enlargement of their new office, which cover 5000 square feet of space, lighted by 100 electric lamps, and connected by wire with every post-office in the kingdom. Fifty telephones and as many tape machines supply the financial news of the day. The firm employ 100 clerks.

MEETINGS OF MINING COMPANIES.

SAN BERNARDO MINING COMPANY, LIMITED.

The fall in silver.

THE second ordinary general meeting of the San Bernardo Mining Company (Limited) was held on Tuesday at Winchester House, the chair being occupied by Mr. PERCY W. THOMAS. The SECRETARY (Mr. A. E. Basham) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, It is with unfeigned regret that we have to come before you to-day with such an unsatisfactory statement, but this time it is not so much the mine that is at fault as a circumstance which has upset the calculations of every silver mine owner in the world—I allude to the ruinous collapse in silver, brought on by the sudden closing of the Indian mints last June. It was very hard that this disaster should have come upon us at the time it did, for had our work last summer been carried on with silver and lead selling at decent prices we should not improbably have been presenting you to-day with that dividend for which you have so long and so patiently waited. There has been an improvement in the mine, and there has been an improvement in the management, and the two combined would, I think, have led to that result. I presume you will take the report as read. The only matter in it to which I will now allude is the statement of receipts as against expenditure from the beginning of May to the beginning of November—that is, during the time that the mill was running. We have set this forth in this manner to prove to you that the actual working of the mine—for the driving of levels 3 and 4 during the winter and spring immediately preceding that date was development work pure and simple—was not carried on at a loss, and that, so far, we were justified in not closing down in June when we were urged to do so by some of our shareholders. Turning first to revenue account, the mine expenses call for no particular comment. The local legal expenses seem heavy, but that arises from special causes, to the transfer from the old to the new company, and the acquisition and patenting of additional property. The charge for taxes by the United States Government authorities is far higher, we maintain, than it ought to be, and we have tried to get some mitigation of it, but we have not succeeded. The item of £58 1s. 3d. is on account of a telephone which was set up in Mr. Mason's time, and which appears never to have been settled for by the old company. Coming to London expenses, office expenses include not only rent and salaries, but postages and telegrams. The amount will be less in future, as we have made some further economies in this direction. Directors' fees are always a delicate matter for a Chairman to touch upon. When a company is not successful shareholders are apt to cavil at their being paid at all, forgetting the time and anxiety the management of their affairs has cost. In order to avoid any such question the remuneration of your directors was purposely fixed in the Articles of Association at a low figure of £300 per annum, divisible amongst the members of the board, an additional remuneration to be paid only if the company was successful. However, if it is your wish, my colleagues empower me to say that we are quite willing to postpone drawing any fees in future until the company meets with a greater measure of success. Under the head of preliminary expenses, in connection with the formation of the new company, there figures only £83 13s. 10d. for the necessary printing and stationery, which, as things go, cannot be considered excessive. The Government registration fee was paid by the old company. Turning to the balance sheet, you will notice that we have carried to cost of developing and improving the mine while the mill was not working to capital account. There is only one other matter to which I will call your attention, and that is Mr. Mason's debt. Against this 1000 £1 shares in a silver mining company have now been made over to us absolutely. These will be realised on the first favourable opportunity, and the account credited with the proceeds, but a portion of the money we shall have to treat as a total loss, the prospect of getting anything further out of Mr. Mason being positively nil. The history of the company since last we met is soon told. Our policy of simply developing the mine during the winter of 1892-3, with a view to preparing a good amount of stoping ground to work on in the summer, was successful, for, although we found we had to go much farther into the mountain in our No. 4 level without meeting a definite ore chute than we anticipated, the stopes above No. 3 level produced so well all through the season that, with quite a small force of miners, we were able to keep the mill running daily upon ore taken practically from this one portion of the mine. It is true that towards the close of the season the ground above No. 4 began to yield ore, and I am only sorry that it did not do so sooner, for, on mixing the same with material taken from the No. 3 stopes, we found that its higher percentage in silver at once sent up the price paid us by the smelters for our product. Commencing on May 10th, the mill ran daily, but not at nights, until the first week in November, when we decided to suspend operations. Altogether some 405 tons of concentrates were sold to the smelters, and 206 tons of first-class ore. The average net price received for the former, after paying freight and smelters' charges, was £6 5s. per ton, and for the latter, £7 18s. and, had it not been for the severe fall in silver and lead, we should have ended up the six months' working with a satisfactory balance to our credit over and above actual cost of production. Allowing for the reduction in freight since the opening of the railroad to Durango, I estimate the loss occasioned to us by the continuous fall in silver and lead from the time when the mill was first inaugurated, early in 1891, at not less than £5 per ton. This would have made a difference to us on our moderate output this season of £3000, and, as you know, it only takes some £1500 to pay the full preference dividend. And this does not represent the full extent of our loss, for there is a good deal of lower grade ore in the upper stopes which we did not think it advisable to touch this season, but which, under the prices of 1891, it would have paid us to work. Had all things been favourable I think we might easily have sent 1000 tons to the smelters instead of little over 600. When the silver panic came upon us we at once telegraphed to our manager, Mr. Hallock, asking for advice. His recommendation was to reduce the staff, to use every possible economy in the working, and wait the course of events. He subsequently assured us by letter that he would be able to continue working the mine without loss unless silver had a further serious fall. He has fulfilled his undertaking, although, as you will see by the statement in the report, the margin over and above expenses is infinitesimal. This was better, I think, than shutting down altogether, and in view of the demoralisation in Colorado ensuing upon the silver collapse, and the uncertainty whether ore could be sold at all, I consider that we have done quite as well as could be expected in having worked on whilst nearly every silver mine in our immediate neighbourhood had to shut down, and it certainly says something for the improvement in the mine that we have been able to do this. As winter approached it became evident that we had better shut down, for it did not seem to us prudent or advisable to spend any money on developing fresh ground, especially with the silver market in such an unsettled condition, and seeing that we can always take up the work again where we left off last autumn, whenever we see fit to do so. We have plenty of ground opened up in the mine with the prospect, after a little work, of getting fresh and specially valuable ore reserves in No. 4 level, and we are free from any trouble from water which in many mines renders a shut-down such a serious matter. Moreover, from what I have seen of the timbering in the mine I do not think there will be much deterioration in the workings during the time—the short time as I may hope it may be—that we are idle. In the meantime, we are getting some further development work done without expense to the company, by means of the leasing system, Mr. Lilley having found two miners ready to take the risk of a lease of No. 3 level, notwithstanding the low price of silver. As regards the future,

much must necessarily depend upon the course of the silver market. I believe that a fair rise in the price of the metal would enable the San Bernardo to be worked profitably, and if No. 4 should justify expectations, I might qualify that and say very profitably. I have never wavered from my belief that somewhere in the San Bernardo Mountain is a large and rich ore deposit, and the result of last summer's working has increased rather than diminished this probability. In support of my views, it is important to notice that we have a much better quality of ore in and above No. 4 level; this, as you can see by the map, being the lowest portion of our workings on the vein. I only wish we could afford to go on with the driving of this level steadily, for I am sure it would reveal something for us, and, perhaps, something very good. Though I cannot honestly say that the outlook is particularly bright, there is no need to take a very despondent view. The fluctuations in the prices of silver and lead are a disturbing feature, and one entirely beyond our control, but we have got a *bona fide* mine well opened up, and thoroughly equipped, and we are in a position to resume work directly the moment seems favourable for so doing. Since silver has ceased to rank as a precious metal, I base my hopes for its future on the natural law of supply and demand, which, I believe, under normal conditions, will eventually regulate the price at a higher level than at present. I maintain that the present conditions are not normal, for it is simply the uncertainty as to what may happen next which is demoralising the market, and making the position far worse than the facts seem to warrant. I sincerely hope there will be no more tinkering legislation after the pattern of the Sherman Act. It is absurd to suppose that any one nation can sustain the price of silver single-handed, and failing a general bi-metallic agreement throughout the civilised world, it seems to me that there is only one other alternative, and that is to treat silver as what, in truth, it has become, a mere commodity, and leave it to find its own level, like sugar, or anything else. Unless it is the express wish of the shareholders, we shall, therefore, leave matters *in statu quo*, and be guided as to our action in the future by the course of the silver market. I should like, in conclusion, to convey to Mr. Nelson Hallock, our late manager, an expression from you of your appreciation of the manner in which, under trying circumstances, he has striven to make the company a success. That he has not succeeded has not been his fault. I should like, too, to send your thanks to Mr. Lilley, our assistant manager, who is now taking care of the mine for us. He has rendered the accounts so carefully as to call forth a special word of praise from our auditors. It is true that we are indebted to our late secretary, Mr. Tate, for having instituted the system upon which the accounts are now kept, for it has been found to work admirably, but credit is certainly due to Mr. Lilley, who, while not a professed book-keeper, has followed it out to the point of absolute accuracy. The Chairman concluded by formally moving the adoption of the report.

Mr. A. VON GLEHN seconded the motion. Mr. E. G. ROSE enquired what was the value of the mine shares made over to the company against Mr. Mason's debt; also if the mine were entirely closed; and if there was not a likelihood of a great fall in wages in consequence of so many miners being thrown out of employment.

The CHAIRMAN replied that the shares were in a company owning a very valuable silver mine, but all silver shares were at present under a cloud, and he could not put a price on them. Business had been transacted in them previous to the silver crisis, and before this company obtained possession of them, at £2 and £3 for the £1 share. The San Bernardo was being worked on lease, as explained. Fewer miners were out of employment than might be supposed, as large discoveries of gold had been made in Colorado recently, and gold mines were opening up everywhere. He estimated the gold production of Colorado would this year be five times as great as it was in 1892.

Mr. KIRCHNER: At what price of silver can the mine be made to pay?

The CHAIRMAN: With silver at an average of 70 cents. per ounce last season a small profit on the actual working of the mine was shown, at 80 cents, a fair profit would be realised, even if no improvement in the mine took place. New York quotations for silver ranged higher than London.

Mr. LEWINGER: Then your mine is one of the most expensive in Colorado? Lots of mines can work profitably with silver at 27d. per ounce.

Mr. ROSE: No mine in Colorado can.

The CHAIRMAN said the expense of working depended entirely upon the character of a mine. A small property could not be worked as cheaply as a large one, such as Broken Hill, with its enormous ore bodies.

The motion for the adoption of the report and accounts was then put and carried unanimously.

Mr. RUSSELL ROBERTS proposed the re-election of Messrs. Von Glehn and McHardy as directors, and thanked the board for their proposal to postpone their fees. He did not think directors ought to be expected to work for nothing, and he would suggest that £150 a year should be divided. The silver collapse was not the fault of the directors.

This was seconded by Mr. LEWINGER, and carried.

On the proposal of Mr. WILKINSON, seconded by Mr. P. ALEX. THOMAS, Messrs. Cash, Stone, and Co. were elected auditors for the current year.

A vote of thanks to the Chairman, directors, and staff, proposed by Mr. J. STEWART, seconded by Mr. LEWINGER, terminated the proceedings.

THE GOLD ESTATES (TRANSVAAL) COMPANY, LIMITED.

A new property.

An extraordinary general meeting of the shareholders of this company was held at the Cannon-street Hotel, on Monday, when the following resolution was submitted for the consideration of the shareholders:—

That it is expedient to purchase the undertaking and assets in South Africa of the Nootgedacht Estate and Gold Mining Company (Limited), and that the provisional agreement entered into between the company and the Nootgedacht Estate and Gold Mining Company (Limited) for the sale of such undertaking and assets be, and the same is hereby approved, and the directors be, and they are hereby authorised to carry the same into effect.

Mr. DAVIDSON occupied the chair.

The SECRETARY (Mr. Arthur Fell) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, The shareholders of this company will have learned from the circular sent out on February 19th the nature of the scheme which has been proposed for taking over the Nootgedacht Company. The affairs of that company have been prominently brought before our own shareholders upon every occasion when a communication has been made to them of late years, and also at the general meetings. It, therefore, does not fall to me to go on the present occasion very much into the relationship between the two companies, seeing that it must be pretty well understood by all the shareholders here. The Nootgedacht Company, having found its working capital provided under the reconstruction which it went through insufficient to give the mine and property a full and fair trial, which it was the opinion of all connected with it that it should have, was obliged in the end to raise additional money, and naturally it came to the parent company to assist in the difficulty, which we did by advancing so much money. They granted a bond over their property, and the parent company agreed to advance up to £10,000 on the bond. In the course of time nearly the whole of that money has been absorbed, and the Nootgedacht Company in the end have had to approach this company and say:—We have given the property, so far as capital goes, a fair trial, and, being unable to raise more capital, we think it will answer your purpose to take back the company on the basis of allowing us 20,000 fully-paid shares for it, in addition to wiping out

the bond. Had this proposition come from a stranger, it might have necessitated more consideration, but inasmuch as the Nootgedacht held a very large quantity of shares in the parent company, they were loath to see the property fall into the hands of strangers. Accordingly, after a good deal of negotiations and bargaining it was decided to recommend the proposal embodied in the resolution. I myself, being on the boards of both companies, had not much to say on this question, and it was, therefore, left to others, who were not so interested, to carry the thing through. The shareholders of both companies will, I believe, think the proposal an acceptable solution of the difficulty. The form that the proposal has taken is a provisional agreement, drawn up between the two companies, and it is now submitted to the shareholders for approval and sanction. There is nothing more I can say on the subject, unless anybody wishes to ask me specific questions, so I shall content myself with moving the resolution now before you.

Mr. J. J. HAMILTON seconded the resolution.

Mr. MACKIN did not see why the company should pay any money at all for the property, seeing they had a mortgage of £10,000 upon it, which, he did not think, would ever be paid.

The CHAIRMAN, in reply, said that the suggestion conveyed in Mr. Hamilton's remarks had been under the consideration of the directors, but they thought it would entail a considerable delay, and would in the end be no cheaper.

The motion was then put and carried unanimously.

MARBELLA IRON ORE COMPANY, LIMITED.

The position of the Scotch directors.—The accounts refused, and the meeting adjourned.

The general meeting of the shareholders of the Marbella Iron Ore Company (Limited) was held on Tuesday, at the offices of the company in Queen Victoria-street, Mr. P. W. SPENCE presiding.

The SECRETARY (Mr. F. Birkenshaw) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, a short time before our last meeting, twelve months ago, the lease with Messrs. Heredia came to an end, and when I addressed you at that time I was under the firm belief that not many weeks would elapse before a new lease was signed or, if that were not the case, that at any rate our own mine would be able to show a fairly good output for the year. I regret to say that in both instances my anticipations were disappointed, as the output from our mine, in spite of every endeavour to increase it, was only 15,428 tons, as against 29,000 for 1892, and 39,000 for 1891, and it was not until the middle of last month, after some 15 months' negotiations, that the terms of the new lease were finally concluded. That lease was signed in Malaga on February 29, and it takes effect on the 1st of this month. The lease is fully explained to you in the report in your hands, a few lines of which I may quote:—"After protracted negotiations an arrangement has just been concluded with Messrs. Heredia, whereby the company secures a lease of their mines for a period of 15 years, with the option on the part of the company to terminate the same at the end of the second year, subject to arbitration, and at the end of every subsequent year by giving six months' notice. The terms are a royalty of 1s. 6d. per ton, the company guaranteeing a minimum extraction of 40,000 tons per annum, and paying royalty on said minimum in advance. Royalty for first two years, or £6000, to be paid on signing the lease. A period of six months is conceded to the company to put the mines into working order, during which royalty will only be payable on such ore as may be extracted. The lease is now being executed in Malaga, and advice of signature is shortly expected." Those are the terms of the lease. They are onerous, but they are the best we could obtain, and we consider it was to your interest to accept them, for we could not forget that during five years of the last lease, during which a royalty of £5000 per annum was paid, the company paid a profit of close on £100,000. During that period we removed some 500,000 tons of ore, and we have no reason to doubt that there are still large quantities of ore in the mine. Our own mine has been extremely disappointing, and very different from what we expected. At times we have been buoyed up by the belief that we have struck the main lode, only to learn a week or two afterwards that the ore had cut out, or that a fault had intervened. We have come across some bodies of ore which were of too low a percentage to admit of their being worked at a profit. We are pursuing further exploration, and I trust we may before long meet with success. You are all aware of the great depression which has existed in the iron and steel trades during past years. The accounts show a profit of £2020, and when you bear in mind our output, I don't think it can be looked upon as being so very unsatisfactory. The reference to arbitration in the terms of the lease is to the effect that if we should at the end of the second year—and, of course, we shall give notice previously to that—come to the idea that the ore was exhausted, or could not be extracted with profit, that then our engineer should examine the mine with an engineer of the lessors, and if they cannot agree as to whether the lease should be rescinded, the matter should be left to an umpire to decide. As to the prospects of the present year it is, of course, hardly possible for us to express an opinion until we know the state of the mine, and get fully to work; but I think we may reasonably expect there will be a considerable improvement on last year's working. We have continually urged upon our managers the necessity for the most rigid economy, and you will find that in the management expenses there has been a reduction of some £400—or, in reality, £500, for we had to pay another £100 for income tax over which we have no control. In conclusion, I should be happy to answer any questions. In the meantime I will move that the report and accounts, as presented, be received and adopted.

Mr. J. C. WAKEFIELD said: I have very much pleasure in seconding the adoption of the report, which has been so fully explained to you by the Chairman. I endorse every word he has said. We have had a mighty deal of trouble to get the lease completed, and we believe we have done well in doing it.

Mr. ROYDS drew attention to the magnitude of the sum expended upon travelling expenses, the greater portion of which he presumed to have been incurred by the Scotch directors in travelling to and from London to attend the meetings. It was his opinion that as the company was essentially an English company, brought out in London, and having its registered offices there, the directorate should be composed of London men. He appealed for some assurance that the Scotch directors would forego their travelling expenses; otherwise he should invite the meeting to refuse the accounts.

The CHAIRMAN said the assurance was one which, without consultation with his colleagues, he could not give. There were many Scotch shareholders who were very anxious to have Scotchmen on the board.

Mr. J. KINCAID thought it evident that Mr. Royds was unacquainted with the circumstances under which the Scotch directors were originally elected. Mr. Macpherson was elected upon a requisition to the effect, signed by a very large number of Glasgow shareholders, and presented to the general meeting. He quite agreed as to the necessity of cutting down the expenses, but asked for fair play.

Mr. ROYDS said that in the absence of the assurance he had thought it his duty to seek, he had no alternative but to move the following amendment:—

That in the opinion of the shareholders, the Scotch directors should not charge the company with their expenses to and from London and Scotland, and that, therefore, they refuse to pass the accounts containing such charges, and that this meeting shall be adjourned for a fortnight.

Mr. WAKEFIELD, while concurring in what Mr. Royds had said, appealed to him not to press his amendment, which, he thought, would do injury to the company.

Mr. ROYDS persisted, and his amendment was accordingly seconded, put and carried.

The proceedings terminated with a vote of thanks to the Chairman.

PARDY'S MOZAMBIQUE SYNDICATE, LIMITED.

A new company to be formed.—The Queen of Sheba's Mines.

An extraordinary general meeting of the Pardy's Mozambique Syndicate (Limited) was held in the Great Hall, Broad-street-avenue, on Tuesday, for the purpose of receiving the report of Mr. J. R. Pardy, and to consider, and if thought fit, approve of a proposition for the formation of a subsidiary company, to be called the Guy Fawkes Reef (Limited), or such other name as might be determined upon. Mr. T. H. WATSON presided.

The SECRETARY (Mr. B. Larchin) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, From the first establishment of this syndicate it has been the policy of the directors to give the shareholders every information that was possible consistent with its welfare. When we have had news from Mr. Pardy we have sent it to the shareholders, and we have not spared any trifling expense that might be incurred. I was reading the report of the meeting of a company in the same district as our own, which boasts of having some of the finest properties that can be held round about Massi Kessi, that they had located their claims without expense. I would rather incur the expense of my friend Mr. Pardy being on the spot, and looking out to find the richest pieces of land that were to be had, and the richest reefs, even if they cost us a little, than locate claims without expense. (Cheers.) In this case, also, the directors are working the syndicate with absolutely no remuneration whatever, feeling sure that when success comes, as come we believe it shortly will, the shareholders will not forget those who have borne the heat and burden of the day. We have had no difficulties whatever with our titles, and I notice that whereas another company in 16 or 17 months has spent about £1700 on home charges, our syndicate, with the exception of the secretary, postage, and petty expenses for management at home, has cost nothing. (Cheers.) I started work with this syndicate with much confidence, after my conversation with Mr. Pardy, as if I had been Mr. Pardy myself. My confidence in him has been strengthened by all I have seen and heard since, and I believe that very shortly we shall have handsome profits. If, however, it had not been for the previous experience of Mr. Pardy we should have certainly not reached the good position we occupy to-day, and should not have met with such bright prospects as are now before us. Mr. Pardy spent nearly 14 years in Africa before he went out in connection with this syndicate. Mr. Alford spoke at a meeting of a company whose property adjoins our own, and said he could see no reason why Massi Kessi should not be a second Johannesburg, and, in my opinion, this very day there is more to show and more to inspire confidence in Massi Kessi than there was at the time the rush commenced at Johannesburg. It would not surprise me to see our own position as pioneers so thoroughly established that ours should be the most successful company that has been established in South Africa. Mr. Pardy's report covers the whole ground of what he has done, from the date on which he started to the hour of his return. We have the greatest confidence in him, and he in turn must have had great confidence both in himself and in the district, when he would sell to us all his knowledge and his right to locate 500 claims entirely for a consideration in shares. (Cheers.) Very few men would have done this, and all he required was men with money to back him in his plans for the future. No time has been lost, and in a very short time he has done for us an exceptionally large amount of valuable work. (Cheers.)

Mr. J. R. PARDY, in the course of his remarks, said: I went to South Africa in 1877, and after various engagements between that time and 1890 I went on to Manica country, through Beira, which then consisted of some three or four houses. It was a lonely hamlet, built on sand pits on the east coast of Africa, fringed by the Indian Ocean. From Beira I travelled to Massi Kessi, making friends with the chiefs of the different countries through which I passed, and, of course, as most of us come to England to try and market that which we have obtained in these territories, I returned on June 16, 1891, with what I thought good enough to lay before the English public. I was disappointed at the commercial stagnation I found then existing, but on meeting with my friends, Mr. T. H. Watson and Dr. Alexander, they asked me to leave the matter in their hands, and they would get the money I wanted. This was done in less than six weeks—(cheers)—and what I required was handed over to me before I left. I started out in the interests of the syndicate, and my report will have shown you the large number of claims I pegged out in the course of a few months. I brought back from the Guy Fawkes reef 600 lbs. weight of quartz, not a particle of it showing visible gold. A portion of this was sent to Mr. Claudet, and another portion to Messrs. Johnson and Matthey, and I made it in your interests and mine a *sine qua non* that they should give me a letter to the effect that no piece of quartz was carrying visible gold. The quartz weighing 22½ lbs. gave 9 dwts., and that weighing 10½ lbs., 4½ ounces, and we estimate our cost of working at 5 dwts. I was able to take up my quarters at the historical fort of Massi Kessi, which was at one time taken by the Chartered Company. This particular district has been a bone of contention for years. It is undoubtedly that from whence the Queen of Sheba got the large quantity of gold with which she made her presents to King Solomon. The whole country is honeycombed with old workings. I have been all through Cape Colony, Pondoland, Swaziland, Basutoland, &c., along parts of the Transvaal and through a portion of Delagoa Bay, but have never come across old workings such as you meet with at Massi Kessi, 200 miles from the coast. They are simply pits of about 4½ feet in diameter, sunk to 60 feet or 70 feet, but the denudations caused by the rain have gradually filled them up to within 30 feet of the surface. The whole ridge on which our claims are placed is honeycombed with these old workings, and we have allowed ourselves to be guided by them. When we came back to the surface, after a drive of 80 or 100 feet into the hill, I traced the same formation for 20 miles right into the Chartered Company's territory. I have left those in charge in my absence who are thoroughly looking after your interests, and who send me reports weekly. I notice there are other companies, with interests in Manica, that are trying to crawl on our shoulders, and they say that their shares must be of value, because I have pegged out claims in their vicinity, but I can only tell you this—that we stand in a pre-eminent position out there. The three or four companies that have pegged out claims in that district have done so on our northern wall on the Guy Fawkes reef, and have since made an eastern extension. I think you understand the value of that when I say that these companies have pegged off on our extension—we have not pegged off on theirs. My calculations have been upset in regard to the ivory, though they have been more than realised with regard to the gold, but in driving about 30 feet I came across the reef, which had evidently been buried, exhibited on the table. There is any amount of ivory in that country, and Mr. Clement, who was at Fort Massi Kessi when I first went there, showed me an almost identical tusk which he had bought. Vegetable ivory, I am satisfied, will be a matter of good trading, but I do not want to speak too much about this, as I have ends in view which might be defeated by so doing. I have suggested that you should work the Guy Fawkes reef at the point at which we struck it, for there we might be certain of getting quick profit out of it. It is easily worked, and the railway is within 90 miles, whilst within the next four or five months it will probably be within 5 miles. An expenditure of £300 will connect us with the main road, and there are no hills to cross. All we have to do is to make a cutting round the hill, and harden one or two of the drifts through which we pass. I propose to take out with me in May a 10 stamp battery, and with that we ought to be making a profit of, perhaps, £1500 a month, as the quartz will be ready for it to treat directly it is erected. Upon our nominal capital that will be a profit of about 35 per cent. That is the dividend I am certain we will pay on the first subsidiary company that is raised by Pardy's Mozambique Syndicate. (Cheers.)

The CHAIRMAN said: I am sure you have been all pleased to meet and listen to Mr. Pardy. He is particularly to be congratulated on having brought home 12 bags of quartz containing 50 lbs. each, and taking care that none of the stone showed visible gold. No one could have acted more fairly in taking these samples than he has done. Three assays have been made by Mr. Claudet; one of 160 lbs. showed 19 dwts. of gold, and double that quantity was sent to Messrs. Johnson and Matthey, with the result of 1 ounce 17 dwts. 12 grains. We had two big stones in the office, the one weighing 10½ lbs., the other 22½ lbs. The former gave 3 ounces 18 dwts. 12 grains, and the latter 9 dwts., but if we put the four assays together the average is 1 ounce 13 dwts. 12 grains. Mr. Pardy's calculations are all based upon 1 ounce, and upon a working cost of 5 dwts. Personally, I think we may safely calculate upon 1½ ounce, more especially as the reef is likely to become richer as we get deeper. When we commenced this syndicate one of the principles we laid down was that this was to be an exploring rather than a mining syndicate, and I do not think we should be wise in departing from that policy. Consequently, our recommendation to you is to form a subsidiary company amongst the members of this syndicate, and let us have it in our own hands. £10,000 is wanted for the working, and £5000 ought to be in hand of that amount before Mr. Pardy leaves us, so that he can take with him the battery, for which plenty of quartz will be ready by the time it is erected. We want for our syndicate to recoup us the money we have expended in locating claims, about £2000, but beyond that no cash whatever, as we take the balance, £30,000 in fully paid shares, and reserve for further issue 6000 shares—should at any time these be wanted. I think we shall be very foolish if we allow a single share of the 24,000 to pass from us, and I propose—"That a subsidiary company be formed, and that the whole matter be put before the shareholders of this syndicate."

General E. HARDING STEWART, C.M.G., Military Adviser to the Crown Agents in the Colonies, in seconding the motion, said he believed the claims of the company were in the choicest spot of Africa. He recommended the shareholders to keep the thing in the family. (Cheers.)

Mr. J. O. LAW, in supporting the resolution, said the shareholders could see that the property was of undoubted value, and he felt sure the shares would be taken up without delay.

The resolution was carried unanimously, and the meeting terminated with votes of thanks to Mr. Pardy for his services, and to the Chairman for presiding.

JUBILEE GOLD MINING COMPANY.

Probable reduction in monthly working cost.—Life of the mine.—120 per cent. dividend.

The annual meeting was held at the offices of the acting secretary, Mr. J. T. Watson, at Maritzburg, on the 31st January.—Mr. J. M. EGER in the chair.

The CHAIRMAN, in moving the adoption of the report and balance sheet, said: Gentlemen, before the adoption of the report and balance sheet is moved, it is necessary that I should go more fully into details. At your last annual general meeting it was my pleasing duty, as your Chairman, to promise shareholders that the prospects of the company were never better than they then presented themselves, and that we hoped to double our dividend of last year, which was 60 per cent. per annum. Now, gentlemen, my promises to you have been amply fulfilled; not only have my most sanguine expectations been realised, but, in addition to the 120 per cent. dividend declared for the past year, a further sum of £7720 profit, equal to another 12½ per cent. dividend, has been earned by the company, which your directors have thought wise to keep in reserve, for, as a matter of fact, the money will be required for additional stamps and new engine, as explained in the report. The company since its formation has declared 360 per cent. dividend, which no other company on the Randt has done, and I think I am justified in saying that the Jubilee is a safe and solid investment. As you will have seen from the balance sheet, the earnings of the company for the past 12 months amounted to £103,499 1s. 4d. at a cost of £59,778 13s. 7d., leaving a net profit of £43,720 7s. 9d., equal to 145 per cent. for the year. I feel, gentlemen, you will agree with me that this is most gratifying and encouraging. I may say, however, that the working expenses and the completion of our joint battery with the Salisbury have cost us considerably more than we were led to believe, but it is pleasing to me to be able to state that expenditure under this head is now at an end, and, unless something unforeseen takes place, the monthly cost of working will also be considerably reduced. The board paid their usual visit to the mine in August last, and when on the Randt held daily meetings with their manager, consulting with him on matters affecting the welfare of the company. They also made a thorough inspection of the company's properties, and satisfactorily arranged important differences which had arisen between our manager and the representatives of the joint battery, which I am pleased to state is now working on a better understanding, and going on smoothly. There is one important matter which I should be failing in my duty to shareholders were I not to mention, and that is, when on the property the board discussed the question of the life of the Jubilee Mine with the manager. Notwithstanding what has been said to the contrary, you will be pleased to hear that our manager states that he is well within bounds in saying that the mine could not be worked out for at least seven or eight years, and if the returns during that period continue on a par with those of the past year, which we have every reason to believe they will, there need be no anxiety on the part of the shareholders. In addition to the mine we are at present working, we have one-half share in the mineral rights of the joint battery ground, amounting to 36 claims, which, I have no hesitation in saying, will, in the near future, be worth considerably more than the capital of the company, and, in addition, we have our old battery site, which is another valuable asset, and could be disposed of for a good round sum. These assets, gentlemen, can be fairly looked upon as reserve capital of the company. As you have gleaned from the report of the directors, the board contemplate erecting a further 10 stamps to our portion of the joint battery to take the place of the old Sandcroft 15 stamps, which have done their work well for upwards of six years, and must sooner or later be abandoned. It will be far more economical and to the advantage of the company to have their milling done under one staff, as well as taking a lot of extra work off the manager's shoulders, for at present he has to supervise two batteries situated far apart. On the grounds of economy it is imperative that this point should be attended to as early as possible. It is my painful duty to refer to the great loss the company has sustained by the deaths of Mr. D. F. Whitaker, one of our directors, and our much deplored secretary, Mr. James Barnes. Both the deceased were old and esteemed friends of mine—in fact, I may say of all present in this room. They were both thorough men of business, to which they added a straightforwardness and uprightness that gained them the friendship and goodwill of all with whom they came in contact. I can only repeat what I have said on every occasion, speaking as your Chairman, regarding our manager, Mr. Glayas, and that is, that in him we have one of the best managers on the Randt. He has his heart and soul in his work, and is proud of the company whose interests he so ably safeguards and conducts. A word must also be said for Mr. Taaffe, our secretary at the mine, who is known to many of you, and who is an honest and faithful servant to us. In fact, we have an all-round good staff, working *con amore* for us, without friction, and with only one object in view, and that is to advance the interests of the Jubilee Company. If there is any point that I may have overlooked, gentlemen, I shall be only too pleased to give any information regarding the past and future of the company that I may be possessed of.

Mr. CURRY proposed that the cash balance in hand should be paid in dividends.

The CHAIRMAN explained that the company had always kept a balance of £7600 or £8000 in hand to meet contingencies.

Mr. FREEMAN thought that the policy of the directors in the past of keeping so much money in hand had been unwise. He hoped that a better course would be adopted in the future.

After further discussion the balance sheet was adopted. The three retiring directors, Messrs. Egner, Chapman, and Payn, were re-elected without opposition.

On the motion of Mr. TUCKER, seconded by Mr. BAKER, it was resolved to vote a sum of 100 guineas to Mrs. Barnes, widow of the secretary.

The action of the directors in declaring dividends, to the amount in gross of £36,000 for the past year, was confirmed.

THE DOUGLAS MINING AND QUARTZ CRUSHING COMPANY, LIMITED.

The new company happily started.

The first ordinary general meeting of the Douglas Mining and Quartz Crushing Company (Limited) was held on Thursday, at Winchester House, the chair being occupied by Dr. T. M. LEDLIE.

The SECRETARY (Mr. J. H. Clarke) read the notice convening the meeting, and subsequently announced that the incorporation of the new company had been completed on February 21st.

The CHAIRMAN said: Gentlemen, on the 8th of November last I appeared before you to urge upon you the advisability of having your company reconstructed, and after three months of long, earnest, and weary work, my colleagues and myself meet you to-day under new and brighter auspices. I do not think that a more difficult task has ever fallen to the lot of any board of directors than that which my colleague, Dr. Webb, and myself had to cope with. Now, gentlemen, there are, no doubt, many amongst you who have been wondering why all this delay should have taken place. It is not unnatural that you should be somewhat impatient. Some of you have had frequent opportunities of conferring with us, and learning from day to day, in many instances, what was going on. However, for the information of those who do not know, I may be permitted briefly to recapitulate what occurred. You will recollect we were asked to wait until the arrival of our mining manager, Mr. Harry Davis. We did so because we felt that, as the request had been made by some of the largest shareholders, that their assistance would prove an element of strength to the new company. At first I had my doubts as to the advisability of that delay, now I am not only prepared to say I was wrong in my view, but that it was the best course which could have been pursued. Mr. Davis arrived in due course, and had an interview with the directors, and then, and then only, your board found that the mine had passed out of our possession into that of Mr. Davis. That, gentlemen, was the serious state of affairs which had there and then to be coped with. We at once obtained an assignment of the property from Mr. Davis, in the names of Dr. Webb and myself, upon terms that we should pay him his arrears of salary and expenses. These did not amount to any large sum, and I think we may fairly congratulate ourselves upon having made such a good bargain. It would naturally be supposed that we had plain sailing then before us. Not so, however. The first difficulty overcome, there at once supervened another. Those who had first expressed a desire to see and hear our mining manager, those who gave us all along the utmost amount of needless trouble and useless expense, were the very first to refuse to take shares in your company, no, mark you, upon any unfavourable report by Mr. Davis, but simply and solely because they elected to pursue that dog-in-the-manger policy which has all through characterised their movements. We had then to deal with these recalcitrant shareholders, and we did it in the most effective manner possible—namely, by forfeiting their shares, and in point of fact "snuffing them out." I will venture to say that before 12 months have elapsed these gentlemen will find, to their regret, that they have by their own foolish action, to use no stronger expression, been left in the cold. To deal with the forfeited shares, amounting to 28,600, was the next problem which occupied your board's attention. We found that this number had been left on our hands by shareholders. We at once set about to place these shares, offering them, in the first instance, to those shareholders who in spite of all pressure still remained loyal to the company, and it was most pleasing to us to see the manner in which these were taken up. When I tell you that almost every instance the holdings were doubled, and in many cases trebled, and in some quadrupled, you can form for yourselves some estimate of the cordial and wholehearted support given to us by 9-10ths of our members. The balance, gentlemen, with the exception of a comparatively small number, have been taken up, and on the 21st ultimo we were enabled to register our new company. Thus after a long, trying, and anxious time the labours of reconstruction were ended, and I can assure you I shall always look back with pleasure and pride upon this the day upon which the consummation was reached—the day upon which my promise to you was fulfilled, and the enemies of your company and of yourselves completely routed. It may savour of egotism somewhat, but there is just reason for pride here. When I tell you that I have had personal interviews with eight out of every ten shareholders, consultations beyond number, and long journeys to their homes, you will, I think, agree that a little pride, a little egotism, is, under all the circumstances, excusable. There is one thing, however, which all this opposition has caused. It has enabled me to make the personal acquaintance of every member of the company except nine—a position in my opinion unique, and probably unparalleled in the history of any company. As your Chairman, I may well defy any other gentleman holding a similar position to show such a record. I cannot but think that much good will ensue from this cordial interchange of views and opinions, and, though some may not find their views fully carried out, I can assure them that the policy of the board has been arrived at after every *pro* and *con* has been most carefully weighed, as the result of much earnest thought, and will, I trust, be found the most advantageous in the end. Let me now briefly explain what our policy is. You are aware that we, as a company, were possessed of absolutely nothing; our machinery was sold to pay debts which the old board thought, and justly so, had been discharged. Our property had also gone. Having recovered the property for your benefit, we had to consider the question of machinery. To purchase this would cost a very large sum, and this we did not feel justified in doing until we had first proved your mine. We, therefore, decided to sink the shaft by contract, and when we have proved the mine and obtained payable gold, we shall then expend the necessary amount of capital upon the required machinery, and go ahead. I think you will agree with me that this was the wisest and best course to pursue. Should we, for instance, find that our mine is not a payable one, then we shall have saved a lot of useless expenditure on machinery. On the other hand—and this is far and away the more probable situation—if we find the gold in paying quantities, we shall at once erect our machinery. Now, gentlemen, whilst our policy in this respect is a conservative one—in other words, we shall pursue a vigorously progressive one, notably with reference to the acquiring of other good properties upon moderate terms. Our manager has gone out armed with full powers to negotiate for us, and beyond stating this much it would be impolitic and imprudent for me to speak. Our working expenses will be reduced to the lowest limit consistent with the proper and efficient working of the mine, and we have for the present dispensed with the office of local director at Croydon. This, gentlemen, is our line of policy, which I trust will meet with your approval. Gentlemen, I think I have trespassing too long, but I have a few words more to say to you. I have no doubt everyone here present will be glad to learn that our board has been augmented by the acceptance of office by Mr. George Griffiths. I feel somewhat diffident in speaking in his presence, but I must say from what I have seen of his tact and general business ability, his readiness to grasp and grapple with a difficult situation, I think he will make a most desirable colleague. You have secured a director upon whose integrity and honesty of purpose you can always rely, and, speaking on behalf of my colleagues, Dr. Webb and myself, I may say we welcome him to our board. Now, gentlemen,

I am in a position to-day to give you some detailed information, and read to you a report which augurs most favourably for the future welfare of this company. In point of fact, I am of opinion that we have now entered upon a new era of prosperity. Let me, in view of this statement, read to you the latest report from our mining manager as follows:—

Gentlemen.—I think I cannot do better than quote my last report on the prospects of the mine, dated Croydon, May 15, 1893: "Have out large formation at a depth of 250 feet, with heavy water. Ought to see reef next week. The formation is good looking enough for anything." This report explains the position of the mine at the present time with the exception of the amount of water since accumulated. This, I anticipate, can be baled out in three weeks. The chances of the property are, however, increased 50 per cent. by the finding of a new reef in one of the frontage claims, which new reef I am informed underlies directly for the Douglas shaft. I would suggest some provision be made to look for the new reef immediately. —Yours faithfully, HARRY DAVIS.

Following hard upon this comes a most ample corroboration of this report, which is all the more valuable coming as it does from an entirely independent source. It is as follows:—

Croydon, December 1.—"No. 8 Golden Gate cleaned up a crushing of 70 tons for a yield of 349 ounces of smelted gold. The reef now averages over 5 feet, is increasing as it goes down and underlying right to the Douglas. If it only continues the Douglas shaft cannot be very far off it at the present time."

Before retiring from the future direction of your company I desire to offer a word of explanation as well as a word of thanks. You will remember, gentlemen, upon the first occasion when I addressed you I spoke in no uncertain terms regarding our mining manager, Mr. Davis. All I then said was based upon evidence supplied by Mr. Viles, of Queensland, of which I had no reason to doubt. Without entering into the merits or demerits of the points then under discussion, I desire publicly to state that Mr. Davis has at all times acted in the most open manner. He has given us, to my mind, his best judgment on all points submitted to him. He has met the board frankly upon all points, and they have dealt frankly with him. I consider his visit here will be productive of good to this company, and I am pleased to be able to state that my opinion regarding him has been materially altered in his favour. Gentlemen, in our hour of difficulty, we were fortunate in securing the able assistance of Messrs. Lewis and Robins, and to each of these gentlemen I tender not only the thanks of the board, but those of a personal character. Last, though not least, I will offer my own personal thanks to Dr. Charles Ford-Webb and Mr. Clarke, our secretary, for the able advice given in the former case, and the ready despatch with which the necessary work was carried out by the latter. I feel now the time has justly arrived when I may lay down my arms and seal of office, and commit the care and keeping of your interests into abler and better hands. What I have promised you I have performed, and, in retiring from the active management of your company, let me say that I shall always take the liveliest interest in its success. There is a bright future, in my opinion, before you, and I am confident before many months have passed you will reap a bountiful return for all your past trouble and misfortune. Your interests will be carefully served by Dr. Webb and Mr. Griffiths, with the tact and gravity of gentlemen, and the straightforward conscientiousness of upright and honourable men. I again most heartily and sincerely thank you.

The three retiring directors, Dr. Ledlie, Dr. Webb, and Mr. George Griffiths, were re-elected, and the proceedings terminated.

Subsequently, a special meeting was held, when a resolution was unanimously passed allotting 2000 fully-paid shares in the company to Dr. T. M. Ledlie, and Dr. Charles Ford-Webb, in consideration of services rendered and expenses incurred.

Votes of thanks having been given to the Chairman and secretary, the proceedings terminated.

JOHANNESBURG PIONEER GOLD MINING COMPANY, LIMITED.

Milling results smaller than expected.—Probable life of the mine.—Election of a new board.

The half-yearly general meeting of shareholders was held on January 31, in the Board Room of the African Board of Executors.

The CHAIRMAN (Mr. F. Mosenthal), in moving the adoption of the report, said that the affairs of the company had not been so prosperous during the past six months as it was expected they would have been. If they compared the gross profits from gold realised during the past six months, with those during the preceding six months, they would find that the amount earned during the first half of 1893 was £20,151 5s. 1d. From that there had to be deducted £13,048 10s. 7d. spent in general working expenses, £1641 5s. 7d. written off for depreciation, and £2891 8s. 7d. written off from permanent works, leaving to the balance of net profit £2560 0s. 4d. If they took the same items from the report for the second half of 1893 they found that £19,520 17s. 8d. was earned from gold realised, £13,677 11s. 10d. was spent in general and working expenses, £2826 was written off for depreciation, and £2531 11s. for permanent works, leaving a balance of net profit of £2465 14s. 10d. If they looked at those figures only, the difference for the two periods was not very large. The board had, however, expected larger profits, and were greatly disappointed because the results from the mill had been smaller than was expected. The reason was that during the period under review the poorest and narrowest part of the property had to be worked. A repeated change of management also tended to throw difficulties in the way of more prosperous results. They would see from the report that an unusually large amount had been spent in permanent works. It had also been the policy of the board to work the mine as economically as possible, and to avoid as long as possible the outlay of large sums of money; in fact, they might have gone a little too far in that direction, so that the outlay of larger sums of money could not longer be delayed. The work had been, however, now nearly completed, and the incoming board would have the benefit of it. The ore now being worked was again improving in quality, and as the new main shaft was now practically finished, and arrangements for hauling were nearly completed, the costs of working would be materially reduced, and better results might also be confidently expected from the ore extracted from the fifth level.

Mr. JONES seconded.

Mr. THOMSON said he would like to have the Chairman's opinion as to the probable life of the mine.

Mr. GOLDMANN said he took it that if they only worked the Main Reef, running at 16,000 tons a month, they might put the life of the mine at five years. Several assays had been taken in the fifth level, and also from the incline shaft, varying from 13 to 16 dwts. The last assay was 9 dwts.

Mr. THOMSON said he was sorry to see that the position of the company had gone back very considerably since the last meeting was held. He also noticed that their funds were pretty well exhausted, and they had incurred liabilities, and the results from the mine proved that they were getting gradually poorer. The position of affairs altogether, he took it, was not at all satisfactory, and as a shareholder, and working in touch with other shareholders largely interested in the company, he felt bound to say that they were not at all satisfied with the state of development and the profits derived from the mine, and they thought it advisable that some new blood should be introduced into the board, which subject would be brought forward at a later stage of the proceedings.

An animated discussion then followed.

Mr. VON HESSERT said that some shareholders at the last moment had split their shares into smaller holdings, so as to increase their voting power. The people who came there and criticised the directors had no holdings in the company, except for the last 30 days.

Messrs. THOMSON and HOLLINS both contradicted this statement entirely.

After some further remarks, the CHAIRMAN put the resolution to the meeting, and declared the report adopted.

Mr. BLOOD moved the re-election of the old board of directors. Mr. FOSTER seconded. Mr. BELL proposed Mr. Hollins. Mr. DODD proposed Messrs. Holliday, Gilchrist, Thomson, and Cooke.

At the adjourned meeting, Mr. F. MOSENTHAL (in the chair) said that the business they had to do was the election of directors. Some serious criticisms, however, were offered at the previous meeting on the conduct of the board, and these were based on three points. The first was, the directors had not made a book entry of £1700 to the profit and loss account; the second was that they had declared a dividend of 37½ per cent. for last year, whilst the profit and loss account only showed a profit of 25 per cent. He did not think it necessary for the board to reply to these two points. The third point was by Mr. Hollins, who considered the mine to be in a bad state. The out-going directors did not agree with that remark, but as Mr. Hollins gave no positive data, it was not possible for the directors to refute what was only an assertion.

Mr. HOLLINS begged to propose the following board:—Messrs. Mosenthal, Hessert, Lilienfeld, Hanau, Thomson, Cooke, and Hollins.

Mr. S. THOMSON seconded the motion.

Mr. HANAU declined to stand, on the ground that the attitude of certain critics of the board made it impossible for him to retain his seat.

Messrs. Goldmann and Friedlander also retired from the board.

In the ballot for the directorate, Messrs. Mosenthal, Von Hessert, Lilienfeld, Thomson, Cooke, and Hollins were declared elected. The auditors, Messrs. H. J. Macrae and G. Hesse, were re-elected.

MOUNT ZEEHAN MINES.

The state of the silver and lead markets.—A more hopeful future.

The fourth ordinary general meeting of the Mount Zeehan (Tasmania) Silver Lead Mines (Limited), was held on Tuesday, at the offices, 353, Mansion House Chambers, Queen Victoria-street, E.C. Mr. DANIEL C. GRIFFITH (the Chairman) presiding.

THE SECRETARY (Mr. F. J. Warner) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, with silver 2s. 3d. an ounce, and with lead £9 6s. 3d. a ton, your directors do not think that they have a very brilliant statement to place before you. Silver has dropped to the full extent of the figures which, some time ago, I had the temerity to say that they might drop to—in point of fact, a little lower; but the effect of this has already made itself felt. I had in my office this morning a representative of one of the largest metallurgical firms in England, who said to me: "We are running short of our silver ores, as few are being shipped. That," he said, "is not because silver is 27d. an ounce now, but because it was 30d. a few months ago." You may be quite sure that the price of 27d. has not yet affected the immediate market; but the price a few months ago had that effect. When the effect of this extra 3d. drop comes to be felt, the amount of silver coming forward will be still smaller, and more mines will be shut up. That, perhaps, is the only comfort I can give the shareholders of the Zeehan Company on the subject of silver. With regard to lead, I must admit that the prognostications a year or two ago have been wrong. I quite felt that when silver went down lead would go up. In that matter I have been disappointed. The reason we did not call this meeting earlier is one for which we need hardly excuse ourselves to the shareholders. They know very well the reason is that we have met them so recently and frequently on matters relating to the raising of further capital, when they assisted us so nobly. We hoped at this meeting to be able to place before you the particulars of further development work, which would encourage you in the future. These particulars are certainly somewhat satisfactory. Those who read the newspapers, which are kind enough to publish our telegrams, saw a week or two ago a very important telegram, which stated "90 tons of gossan would be shipped by first steamer, containing 120 ounces of silver to the ton." According to the newspapers it appeared that we had 10,000 ounces of silver from this one source. A second telegram, however, came in last night, which somewhat damped us. The telegram said: "Instead of 90 tons of gossan, read 19." I am very sorry for that, but we cannot help it. I am, however, equally pleased that the telegram went on to say that at our Argent claim, the south drive on our No. 6 lode at the 72 level, where we had hitherto done no work, we have opened up a fine shoot of ore. That more than makes up for all the 90 tons. With regard to the other developments, the manager writes:—"In the prospecting shaft on the Francis lode the lode is 4 feet wide; 18 inches, splendid ore." In the prospecting shaft the width of this lode a fortnight ago was 36 inches and 15 inches good ore, so that it has increased to 4 feet and 18 inches good ore. We have also to state that, in a letter received this morning, the Montana No. 1 lode, instead of being, as we thought, 8 inches solid galena, has really 8 inches in each wall—that is, 16 inches of good, first-class ore. Then, again, in another telegram our manager says:—"I have every reason to be satisfied with the development in progress." The only thing we have to find fault with in Mr. Vincent is that he did not start this development work weeks ago when we wired him to do so. We were extremely cautious, but as soon as we could afford to send the £300 a month for development work we sent it out with instructions to begin at once, and wiring him at the same time not to waste money on surface work. Mr. Wilson wrote out a series of instructions, pointing out what he should do, and, of course, they did not arrive for some time. At the last meeting a shareholder asked me if we had plenty of ore. I said I thought we had, but we ought to cut another lode, called the Wilson lode, which has a very good show at the surface, and which work we estimated would cost about £200. Even supposing it cost £300, it would be well worth attempting, and we accordingly recommended by wire this should be done as early as possible. We have never attempted to get anything out of this lode yet, although we have reason to believe, from the surface indications, that it is a very valuable one. It is very near our No. 4 lode. We are driving south on the course of this No. 4 lode to its junction with Francis lode, and the letters just received from the mine state that the wall of No. 4 lode is turning off apparently to Francis lode, where there is good ore. The manager has reason to think that he is at the junction of these two lodes, and, therefore, we may look forward to a very great improvement before very long. The directors are very anxious to let some of their sections on tribute; but the difficulty in the way of their doing so is that the miners at Zeehan have not been inclined to accept the terms under which we would allow them to work your mine. We had a letter last night stating that he had let on tribute about 40 acres of our Silver Queen Extended southern section, and that he thought that 20 acres of our Argent No. 1 section would be let on tribute on our conditions, which were that we should be at liberty to take over the property again, after a reasonable time, on our repaying them all the money they had spent on the mine and giving them a bonus on their discoveries. The most important question which the shareholders will ask us is—"Can the mine, with silver and lead at the present prices, be made to pay?" That is a question which I cannot absolutely answer, except by replying in a crooked manner to a perfectly straight question. My reply is that it depends upon the value of the lead found in the ground, and nothing else. I assure you that the Western Mine has produced during the last few months something under 600 tons of silver lead a month, which has been sold for £15 a ton, amounting to £9000. From that £9000, as far as I can judge, I should say that they have not spent more than £7 a ton in its production, which leaves a very handsome profit. If we could do the same thing we could pay very handsome dividends. The Western has also found gossan valued at 280 ounces of silver to the ton. We are in hopes that our gossan discovery will enable us to realise more profits. It is important for us to remember that in many of our outcrops we may have this friable gossan, the silver contents of which would be quite sufficient not only to pay for its being mined,

packed, and sent to England, but to leave a large profit besides. I believe we shall get it smelted at very little below its intrinsic value in silver. Our mine can only pay if we find silver lead in sufficient quantities to work on a fairly large scale. As long as we are finding only small quantities it will not pay, but when we begin to find it in large quantities it will pay. A proof of that is shown by the table, which has been prepared by Mr. Wilson, one of the directors of the company, which contains a great many other interesting details. This table shows that when we have turned out a small quantity of lead per month there has been a loss, but when we have turned out a large quantity per month there has been a considerable gain. In February and March, 1893, we had a loss of £3 per ton; in April and June, 1893, we had a gain of £6 a ton; in July we had a loss of nearly £5 a ton; in August, September, October, and November we gained, notwithstanding the low price of silver and lead, £3 a ton. These are very interesting particulars, and are a great deal of assistance to the board. There is one matter referred to in the report which I must allude to, and that is with regard to the concentrators. We are still losing silver by our concentrating process, and I am thankful to say our manager is aware of it. Some time ago the management in Tasmania would not acknowledge that we were losing silver and lead in the process of concentration, but now it is acknowledged—which is the first step towards setting it right. How we shall set it right and how the details are to be carried through I am unable to state at the present moment; but we are doing our best. Had silver and lead remained at the same price they were when we started the company, there would have been a very handsome dividend from the work we did last year, although it was on an extremely small scale. We confined ourselves then to merely necessary work, because we had no money to develop the mines on a large scale. I have great hopes that before many months are over we shall see a great improvement in our prospects. I now beg to move the adoption of the report and accounts.

General L. W. BLACKER seconded the motion.

Mr. THORLEY said he had recently returned from the Tasmanian silver fields, and he hoped the shareholders would not be disappointed at the telegram relating to the gossan, because in other silver mines there gossan of a far richer quality and in larger quantities than that discovered in the Argent had frequently been found. The gossan the manager referred to was in the upper slopes of the Argent 72 feet level, and as the slope approached the surface the gossan appeared in a decomposed form, and not in a hard iron form. At the time he was there 20 or 30 bags were taken out and brought to the surface, and Mr. Vincent had assays made of them, and they went as much as 280 ounces of silver to the ton. He might point out that there was a lode at the Silver Queen Mine—which was some little distance from the Argent; but still the lode ran in the same direction—which consisted of carbonate of lead in a gossan formation, very similar to what had been discovered in the Argent, and they took out a lode not 2 feet wide, from which in six months they realised upwards of £40,000 at a small cost; so that, even with the prices of silver and lead as they were now, they had much to look forward to still. (Cheers.)

The motion was then put, and carried unanimously. After the re-election of the auditors, a vote of thanks was given to the Chairman and board, and the proceedings terminated in the usual manner.

WHEEL AGAR.

Selection of a new manager.—His opinion of the mine.

A special meeting of shareholders in Wheel Agar was held on the mine on Thursday, for the purpose of considering the committee's appointment of Captain Hambly as manager, and hearing a report on the mine from Captain Hambly. The purser (Mr. Cornelius BAWDEN) occupied the chair.

Mr. MICHAEL WILLIAMS stated that at the last meeting the shareholders asked the committee to enquire into the position of the mine, and they unanimously recommended the appointment of a manager, and out of the applicants received they recommended the appointment of Captain W. Hambly. He moved that Captain Hambly be appointed, and this was seconded by Mr. TREMBATH, and carried.

Captain HAMBLY presented a detailed report on the position of the mine, and in referring to the New North lode stated they had four points in operation on that lode at the 300 fathom level, the low price of tin at present constraining them to work it on the tribute principle. They were now engaged on the work of fully testing the full size of the lode by stripping down the north, which would give them the full width of the lode; cut the ground necessary for tram road, &c., and cut the trip-plot, and at the same time make preparations for the sinking of the shaft below the 320 level in a vigorous manner. The masterly appearance and yield of the lode demanded such, and in order to open up the ground economically and expeditiously they proposed sinking on the line of the lode, and obtaining a sufficient depth to make the perpendicular 10 fathoms. Therefore, it would be seen that a short crosscut from the underlie to get in line with the shaft would be necessitated, and thus enable them to bring down the perpendicular to the 330 fathom level. There were points and places in the upper part of the mine on the main or Waddington's lode. That would pay to work on tribute, and thus enable them to keep a portion of the stamps and machinery at work, which would prevent the same from dilapidation. In the meantime they hoped to open up some good ground in the bottom, which promised at present to be very remunerative.

Mr. J. WICKETT said he supposed Captain Hambly had satisfied himself that he could pull the mine through in a manner satisfactory to himself and everybody else. People could not go on for ever paying calls, and, in fact, the bulk of shareholders had paid as much money as they were able. It was incumbent upon the manager to remember that, and everybody in connection with the mine must do his best to make both ends meet. Captain Hambly came there with the confidence of everyone, and they looked to him and believed he would manage the mine well in the future.

Captain HAMBLY said their idea was that the mine must be worked with all possible economy, and in order to do that they were going to drive and sink on the most productive and promising parts. They would endeavour to pull the mine through, or would make it so bad that no one else could do so. He was sure they had a rich mine in the bottom.

Captain DANIEL, the late manager, read a statement in refutation of "the infamous mis-statements circulated in the local press and elsewhere." He said that during the past two years and 10 months, during which he had managed the property, the shaft men alone had erected a new balance bob at the 215, fixed main roads from the 235 to the 285, and fixed the plunger lift at that level complete. They had also fixed a drawing lift complete at the 300, sunk the shaft 35 fathoms with 300 fathoms of heavy pitwork standing over their heads, driven 24 fathoms in crosscuts, 14 fathoms on the course of the lode, risen 8 fathoms in a rise, brought the skip road from the 285 to the 320, and cut the plots at two levels, besides other work. During the same period they have driven, risen, and sunk over 1000 fathoms, besides stoping and other work. They were satisfied that they had done their utmost, and that if their efforts had been equalled in the same time—which he doubted—they had not, under similar circumstances, been surpassed in any mine in the neighbourhood. He should willingly assist Captain Hambly by seconding what he proposed by helping him to the best of his ability in carrying it out. (Applause.)

MYSENN HARNHALLI GOLD.—An extraordinary meeting of the above company (in liquidation) was held on Tuesday, at 2, East India-avenue.—The liquidator (Mr. E. W. Layton) said he had endeavoured to carry out the reconstruction of the company according to the resolution passed and confirmed at previous extraordinary meetings, but in these bad times he had found great difficulty in doing so, and, therefore, he had called the shareholders together to

modify the scheme in one of two ways. He had tried to the utmost to place the shares with a 5% liability, but he believed this could not be done, and, therefore, he asked the meeting to modify the clause in the scheme by allowing himself or the directors who would take his place to issue them at 17s. paid. This would be an advantage to the shareholders if the company proved a success. It would also be necessary to modify the Memorandum of Agreement, so that this proposal could be carried out. He then had every confidence that they would be able to carry through the scheme of reconstruction.—Replying to a shareholder, the liquidator said the calls would be made as light as possible—perhaps 3d. on application and 6d. on allotment.—The necessary resolutions were unanimously adopted.

NOOTGEDACHT ESTATE AND GOLD MINING COMPANY (LIMITED).—An extraordinary general meeting of the Nootgedacht Estate and Gold Mining Company (Limited), was held on Monday, at the Cannon Street Hotel, for the purpose of considering the policy of selling the undertaking and assets to the Gold Estates (Transvaal) Company, and voluntarily winding up the company.—Mr. Davidson, who presided, explained the details of the scheme which it was proposed to carry through, and narrating the events which had led up to the present position of affairs, said that unfortunately the company's mine had been of that "Will-o'-the-wisp" character that it had led many people who had been to see it to be believers in it, besides leading them perhaps further in the direction of borrowing than they otherwise would have gone. One week the ore was of an encouraging nature, but its quality fell off the next week, and the general average low grade of the ore was against a successful prosecution of operations, besides which they had been hampered by a great scarcity of labour. The Chairman concluded by moving a resolution approving of the agreement proposed to be entered into with the Gold Estates Company.—Mr. Twentyman, in seconding the resolution, characterised the scheme as both fair and reasonable.—In reply to a shareholder, the Chairman said he did not believe it was the intention of the parent company to work the property in question. They might, however, allow it to be worked on tribute with a view to somebody coming along who would buy it.—The resolution was passed, and it was agreed that the company should be wound up voluntarily, Mr. H. C. Porter (secretary) being appointed liquidator.

GOLD MINING IN WALES.—At Westminster County Court, on Wednesday, before Judge Lumley-Smith, Q.C., Mr. Weston, a mining engineer, sued the Cardochan Company to recover £15 15s. for plans. Defendants' mine is situated at Llanmorklyn, near Bala, North Wales, and their machinery for the crushing of ore was not satisfactory. After numerous interviews it was arranged that the plaintiff should draw plans for proposed alterations to the machinery, for which he was to have £15 15s.; but the defendants alleged that the plans were not detailed as arranged, that they were not delivered in time, and that there was not sufficient provision made for drying the shine which contained the gold. This plaintiff denied. The judge gave a verdict for plaintiff, with costs.

A MINISTER OF MINES.

MR. PRITCHARD-MORGAN'S PROPOSAL.

(From the Westminster Gazette.)

MR. PRITCHARD-MORGAN, M.P., is chiefly known by his connection with gold mining in Wales. But he represents a large coal mining constituency, and one of his pet projects is a Minister of Mines. He intends to move, as an amendment to the Address, that one should be appointed.

"Has the matter ever been before the House of Commons?" a representative of the Westminster Gazette asked the member for Merthyr, yesterday. "Yes," was the reply; "I made the proposal three years ago, and it was only lost by about 40 votes in a large House. All the Liberals then voted for it, and I assume that many of the Conservatives will vote for it now."

"Why are you moving again in the matter?"—"Because the time is quite ripe. When the lock-out in the coal trade took place a few months ago the Government was forced, in deference to public opinion, to appoint Lord Rosebery to preside in an informal manner over the deliberations of the masters and the men. Lord Rosebery was able to make suggestions, which were adopted, and the men returned to work within 24 hours. Since then the Board of Conciliation has been appointed, with Lord Shand as Chairman. But this board has only powers for one year, three or four months of which have gone. At the end of the 12 months we shall be exactly as we were, and the conflicts between masters and men will commence, and strikes or lock-out or both will follow unless some such appointment as I suggest is made."

"Does the proposal meet with much support, outside?"—"Yes. Since I first brought it forward the Miners' Federation have adopted a unanimous resolution in its favour. The London Chamber of Commerce has done the same. And if a plébiscite of the miners and mine-owners throughout the kingdom were taken 95 per cent. of them would, I am sure, be of the same opinion."

"What would the new Minister's duties be?"—"He would exercise similar functions to those performed by Lord Rosebery and Lord Shand, and would decide all questions connected with the carrying on of the mining industry. He would, for instance, deal with the eight hours in mines movement in its various phases, the vexed question of the employment of unskilled labour in mines, and would generally be responsible, as a Minister of the Crown, to Parliament and to the country for the greatest encouragement being given to the development of industry which necessarily gives employment to labour, and which must tend to create social satisfaction. He would also take charge of all legislation pertaining to mines. He would not only deal with disputes between employers and employed, but between mineowners and royalty owners. He would be the mouthpiece of the Government on mining matters, and would exercise not simply administrative, but judicial functions if necessary. The principle of compulsory mining on private lands would obviously come within his purview, and following that the amount of royalties, if in dispute, and the principle on which they should be charged, would be considered by him. The mining interest now represents 70 millions a year, so that it is well worth more official attention than it receives. At the present moment the supervision of mining is in a state of chaos. The Home Office exercises a certain supervision. In some instances mining is under the control of the Treasury, in others under that of the Admiralty, and in others the Ecclesiastical Commissioners. Then the Board of Trade deals with mining statistics and the pollution of rivers. All this conflict of authority would be done away with under a Minister of Mines."

"What are the official objections to the proposal?"—"The expense and creation of a new portfolio, but if a Minister were appointed I am sure expense would be saved in the long run."

"What do you think about the topic of the hour and the next Liberal leader?"—"The man who is to be leader of the Liberal Party, and who is to retain that position, must be a man who will see that not only the mining industry, but all other industries of the country are in every way encouraged. The land-lords have had their day, and the merchant princes and capitalists have had theirs. It is now the turn of the working men."

THE MOUNT LVELL MINING AND RAILWAY COMPANY, LIMITED, TASMANIA.

REPORTS BY EXPERTS.

MESSERS. W. H. BARKER AND CO., the well known Australian mining agents, of Leadenhall-buildings, have favoured us with reports upon the position of the Mount Lyell Mining and Railway Company of Tasmania, from which we cull the following particulars:—

The Mount Lyell Mine is situated in the western part of the Island of Tasmania, about 45 miles south of the celebrated Mount Bischoff and distant about 14 miles from the deep waters of Port Strathairn (Macquarie Harbour). The mine has been reported upon by Dr. E. D. Peters, of Boston, U.S.A., the eminent mining and metallurgical engineer, Mr. T. Alexander Allan, late superintendent of the Tharsis Mine, Spain, and Mr. A. Montgomery, the Government geologist of Tasmania. The property of the company consists of 323 acres fully comprising, and adjoining the main ore body and a smelting site of 45 acres held under a special Act of the Tasmanian Legislature granting the company a lease for 30 years with right of renewal. The mine, which is situated about 1200 feet above the sea level, is a huge deposit of copper and iron pyrites, containing gold, silver, and copper, averaging 2 dwts. of gold, 3 ounces silver, and 4½ per cent. of copper per ton, which is considerably higher than that obtained from the Rio Tinto or Tharsis Mines. The mine has been thoroughly prospected, four tunnels have been driven into the ore, which, together with some 2500 feet of drives, levels, crosscuts, winzes, rises, &c., gives a good basis upon which to form an estimate of the amount of ore actually in sight.

Dr. Peters states in his report that, after allowing for lower grade ores, contingencies, and without further exploration work, there may be taken out from the area actually opened up, about 4,500,000 tons of pyrites, of an average value of £3 6s. 5d., and, further, that at the lowest opened level the deposits maintain the characteristics, and give every evidence of increase in bulk and depth. In estimating the profits, Dr. Peters has taken the low average of 4½ per cent. copper, 3 ounces silver, and 2½ dwts. of gold, total value £3 6s. 5d. per ton of ore, but taking the value of silver, which has depreciated since the date of Dr. Peters' report, at 2s. per ounce, which is below the present market value, and the cost of treating at £1 16s., as estimated by Dr. Peters, the profit on 300,000 tons, that is contemplated to treat annually, would be £1 5s. 10d. per ton, or in the aggregate £387,500. These estimates are based on the 4,500,000 tons of pyrites now exposed. There are also, upon the property, veins carrying high percentages of copper, silver, and gold, but none of these richer ores are taken into account in estimating the value of property as a basis for permanent operations.

A winze has been sunk from the level of No. 4 tunnel, which is the deepest point opened in the mine, and ore of a very high silver and copper grade has been found. Dr. Peters, referring to this discovery in his report, says:—"A winze was sunk in the iron shale, just to the footwall side of the rich Fahlore streak. It was soon found that this ferruginous shaly material was exceedingly rich in silver, carrying 300 ounces or more per ton, in the shape of a powdery, black sulphide of silver. This streak was from 1 to 3 feet wide, and persisted for some 25 feet more in depth, 30 or 40 tons being extracted in sinking this small winze. At a depth of 30 feet or so in the winze a rich mass of copper pyrites protruded into it, assaying 20 per cent. in copper and 800 ounces in silver. Still deeper it became mixed with copper-silver glance, to the extent already described, and the present workings are now altogether in this rich ore."

Mr. Montgomery, in his report to the Government, states:—"The ore body would, therefore, appear likely to be wider underground than it is on surface, where it is close on 300 feet across. Let us take the width as 200 feet, seeing that the ore is of the average value for that distance in No. 3 adit; it has been driven on to the south for 450 feet, and to the north it has been exposed on surface for over 350 feet, making a total known length of, say, 800 feet. Let us call the average height of the surface above the level of No. 4 adit 180 feet; we may say that the ore is pretty fairly exposed for a block 800 feet long, 200 feet wide, and 180 feet high. This would contain a little over one million cubic yards, or, say, 3½ millions of tons. Below No. 4 level it is reasonable to expect quite as much ore as above it, so that above the level of the Linda Valley there should be quite 7½ millions of tons. These are large figures, but the estimate is quite a conservative one. Taking only one-third of the quantities payable, there would still be enough ore to supply 1000 tons a day for seven years. The very uniform quality of the pyrites, wherever it has been cut into, entitles us to be confident that there will be no great variation from the now known values when the mass is further explored, and the quantity exposed is so large that there need be no hesitation in at once proceeding with the erection of smelting works."

In a further report, the Government Geologist states:—"The owners of the Mount Lyell Mine are to be complimented on their enterprise and wisdom in obtaining the services of so well known and high an authority on copper smelting as Dr. E. D. Peters, jun. It is evident that the mine must be worked on a very large scale, as its average value is not very high, and it is only a man of high standing in the copper world, and great experience in copper mining and smelting, who is competent to pronounce with authority on the prospects of the mine, and design and lay out the reduction works. It is very satisfactory to know that Dr. Peters expresses himself as convinced of the payable nature of the mine. He proposes to build works capable of treating 500 tons a day at first, to be later on increased to 1000 tons daily capacity if required. There is no doubt as to the ability of the mine to supply the quantity of ore with ease, and the average quality has been sufficiently proved by numerous tests. The ore is about double as rich as the celebrated Rio Tinto Mine, in Spain, which contains only from 2½ to 3 per cent. of copper, about 1 ounce of silver to the ton, and only traces of gold. As will be shown below, there are many features in common in the Rio Tinto and Mount Lyell deposits, and there is every reason to believe that the latter will yet rival the fame of the great Spanish mine. In calculating the profit on the treatment of the Mount Lyell ore, Dr. Peters, in a report to the shareholders, takes no account of the rich silver ore that has been found, or of the valuable auriferous gossan on surface, basing his figures only on the average value of the main pyrites body. The rich ores are, however, an important factor in the profits of the company, and there is a great probability of their considerably raising the general average yield of the mine of gold and silver. The policy of disregarding them in making an estimate of the results, to be expected in working, is highly commendable as a conservative and cautious one—the poor average ore alone is relied on, and any rich stuff will be a gift to the owners superadded to their regular profits. The richness of the gossan, and of the decomposed and altered ore on the eastern wall, indicates that there has been extensive chemical action on the out-kirts of the ore body, and it is very likely that the quantity of richer material will prove to be very considerable."

The Tasmanian Government has issued a proclamation precluding any person from settling on an area of 2500 acres in the Queen Valley, so that the company may be unrestricted in choosing just such a site as they may require for their smelting and other plant, and has also promised the company the exclusive right to all the timber in the fine and extensive forest of the Queen, for the use of the mine, railway, and smelter. This is a most important concession, the value of which it would be hard to express in money, as it is simply indispensable. The company is thus assured an ample supply of fuel, timber, lumber, and charcoal for a long period, at the mere cost of cutting, which is exceedingly low in Tasmania, being considerably under 2s. per ton of 80 cubic feet. The favourable natural position of the mine, together with the character of the ore and the local facilities, will permit the installation

of works for the production of copper upon a large scale annually, and render the company, from the outset, independent of any return from the sulphur in the pyrites, beyond such as will result from the manufacture of sulphuric acid to be used in connection with the company's own operations.

Water power has been acquired on the Queen River, where there is a fall of 400 feet, which, when gauged in the dry season, represents 300 horse power, and there has been secured, from Lake Margaret, a further supply, having a fall of about 1600 feet, representing over 2400 horse power. These rights are granted to the company under the Mining Acts of the colony. From these two sources a sufficient power can be transmitted to work all fixed machinery, air compressors for the rock drills, and other appliances, and so allow of the greatest economy in working. The rainfall is abundant and well distributed throughout the year, and, therefore, the continuity of this power is assured, without the necessity for costly reservoirs and other artificial means for collecting and storing water. In addition to supplying power, the accumulation of water can be used for washing, leaching, and other operations in the treatment of ore. By special Act of the Tasmanian Legislature, the company has acquired the right to construct a railway from the mines to Macquarie Harbour, with land concessions and other traffic advantages. The surveys are completed, and the line can be constructed with all dispatch. Other mineral deposits in the Mount Lyell district will be opened up by the railway, and with improved means of communication, settlement of population, and development of local resources will be largely promoted. The traffic that may thus be created will be a source of profit to the company.

THE EDITOR'S LETTER BOX.

We wish it to be understood that we do not hold ourselves responsible for the opinions of correspondents. All communications must be accompanied by the names and addresses of the writers, though these need not necessarily be published.

GOLD EXTRACTION.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR—Once and for all I must crave your indulgence for space to reply to some of "Scrutator's" attacks on Mr. Hannay's electro-cyanide process, and to minimise his eulogiums of the MacArthur-Forrest process. First of all "Scrutator" complains that, as he had heard nothing of the Hannay process since July, he concluded that it had been "relegated to the limbo of forgotten things," but on discovering his mistake he next imagines that it must have been slumbering, and objects to its being aroused from its slumbers. I assure your correspondent that this "pet child" never has been asleep, nor is it likely to be allowed to now, and if he had been at all anxious in regard to its nurture, he might have acquired every information from several sources, including this office. Another complaint is that the results of experiments have not "been made a matter of public knowledge." This will be done when necessity arises. But why does "Scrutator" refer to Barker and Molloy as being anticipators of Hannay's process, and only sound the praises of the MacArthur-Forrest? Simply because, as he has been forced to admit, he is interested in the latter, and must, therefore, do his best to decry opposition. His prophecy about "litigation for infringement of patent rights" is sheer "bluff," the Cassel people know better, but assuming such a contingency to arise, is "Scrutator's" proverbial "coach and four" not as likely to get through the MacArthur-Forrest patents as Hannay's? Your correspondent is surely aware that it is generally believed that Mr. Hannay was the first man called in to find a process for the Cassel Company, and, rightly or wrongly, it is said that the MacArthur-Forrest patents are based upon information furnished by that gentleman to the directors of the Cassel Company.

"Scrutator," in his latest ebullition, practically charges me with being a "blusterer." I give him my assurance that I am at any moment prepared to undeceive him on that score, and as for his attempt to split hairs over my use of *non de plume*, I can only say that it is both unmanly and discourteous to resort to such garbling tactics. If he failed to comprehend my meaning, he is the first man with whom I ever crossed swords to make such an admission.

But "Scrutator" charges me with something more serious when he says I have purposely evaded answering his "salient questions." I did no such thing, but I did not consider his method of seeking information was deserving of notice, nor do I think so now. Had he submitted his questions to me, and failed to get satisfactory answers, I could have found no fault with his attacks, but he assumes a position which his meagre knowledge of facts does not justify him in doing, and poses as the "guide, philosopher, and friend" of the public at large, when all the time his actions clearly indicate that, presumably for personal reasons, he has demeaned himself to become a "tout" for the Mac Arthur-Forrest people.

"Scrutator" evidently wants to throw the responsibility of the article which appeared in the *African Review* on my shoulders, but I assure him that I did not even inspire it, nor did I invoke the aid of the journal in question.

I am not, therefore, responsible for the assertion that Messrs. Johnson Matthey "occupy the leading position in the metropolis as assayers," but this I do know, that the firm is one of the highest standing, and possessing an unblemished reputation. Furthermore, they did conduct a series of tests extending over a period of at least three months with "most satisfactory results," and, as regards Mr. Claudet, assayer to the Bank of England, who is not compelled "to confine his services to that institution exclusively," also has conducted a series of experiments—not in 1891—but in 1893 and 1894, and has yet several more trials to make. At what distant future "Scrutator" proposes to disclose his identity I cannot, of course, pretend to know, but he may take this from me, that when our proper time comes the expert certificates—up to date—will be forthcoming.

Now, Sir, if "Scrutator" can ask me a more stupid question than the following, I will forthwith award him the "cake." He says: "Why did Mr. Cruikshank, if he had such a satisfactory result to communicate, let the grass, so to speak, grow under his feet, and not send it the day afterwards to the representatives of the Press, who were invited to view the process?" Great Scott! The material treated had to be allowed to settle, the liquor had to be drawn off, the tailings required drying—an operation of two days' duration, at least—and finally, it was necessary to have an assay made; yet I am asked to accomplish all this in a few hours!

It is not a fact that "a sample of refractory ore was submitted by Messrs. Parks-Smith and Pape for treatment," and that "the process proved an absolute failure." Mr. Parks-Smith did try a parcel of tailings, which may have contained anything, and the trial was abandoned, but if the engineer (in charge?) became seriously ill, on account of "noisome fumes," I never heard of it; and, take my word for it, the kind of "fume" that used to "sicken" my engineer was of a very different nature from what would emanate from the operation in question. If "Scrutator" is gleaming his valuable information from such a source as this,

he might as well save himself the trouble, and devote his attention to something else.

As I must decline to notice further correspondence on this subject, here is my final challenge to "Scrutator." Let him find a parcel of refractory ore—say, 3 cwts.—and give me a certified copy of the analysis, bring his own cyanide and mercury—the plant is at his disposal on 24 hours' notice, and full permission will be given your correspondent to publish the result.

I have allowed myself to be drawn into a vortex of public-house abuse—unparalleled, perhaps, in the annals of newspaper controversy—because of my reference to a gentleman whom your correspondent, "Lux," was pleased to refer to as "one Ralph Waldo Emerson MacIvor." I merely mentioned that he was neither "Doctor" nor "Professor." I possess documents in which he describes himself as such, but that is nothing to the purpose; he also claims to have taken the degree of M.A. at the age of 17 in Glasgow University, but I am assured by an associate and friend of his youth that he was never even a graduate of that institution, nor, indeed, of any other University. Apologising for this somewhat long letter, I am, Sir, yours obediently, A. CRUICKSHANK.

73, Basinghall-street, March 8th.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—My attention has been drawn to a correspondence in *The Mining Journal* in connection with a process for the extraction of gold by Mr. J. B. Hannay, in the course of which my name is maliciously and unwarrantably introduced. I beg to state that I have nothing whatever to do with Mr. Hannay or his process. The first writer, whose name is "Lux," I could have afforded to ignore with the silence which he deserves, but when I find that my quondam secretary, Mr. Alexander Cruickshank, snaps at the hand that fed it, I feel that in self-defence a word of explanation is due from me. I am accused with not being entitled to the prefix "Professor" or "Dr." to my name. I lay claim to neither distinction. Those persons who chose to speak of me as such must bear the responsibility. Possibly, they may be actuated by a knowledge of the fact that I am author of some works on the chemistry of agriculture, the value of which was recognised by the Governments and people of Victoria, Queensland, and New South Wales, and accentuated by the Press of the world. On the title page of each of these widely-circulated works will be found the titles I, at the time of publication, thought fit to use. With regard to positions of professional character which I have held during my career, let me mention those of Principal of the Department of Agriculture, Technical College, Sydney, N.S.W., and Assistant Professor of Chemistry with the late Professor Dillmar, LL.D., F.R.S., Anderson's College, Glasgow.

With respect to the two young ladies who lost their "little all" in the company with which my name was connected, I may inform Mr. Cruickshank that I reserve the history of that transaction for publication elsewhere. Meantime, let me assure him that if he persists in any further attempt to stab in the back one whom up to a recent period he was pleased to call friend and benefactor, I shall make all possible haste to inform the public who Mr. Cruickshank is.—Yours, &c., R. W. EMERSON MACIVOR, F.I.C., &c.

SUTHERLAND REEF, LIMITED.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—Instead of reconstructing, the company should have taken legal proceedings against the vendors for the recovery of the purchase money. The Chairman of the company was paid 250 guineas as liquidator! What do the directors' fees and manager's salary amount to? How much will the shareholders have to pay for Mr. Procter's journey to South Africa? The 20-stamp battery will cost about £10,000, to pay for which 1s. per share must be called up. Further calls may soon be expected for expenses at the mine and in London. In the present condition of the mine, there is absolutely no justification for the purchase of a battery, and it is doubtful whether there ever will be—probably not before further funds have been obtained by another reconstruction. More than 500 shareholders refused to apply for shares, and preferred to accept a few farthings for their old shares from the liquidator sooner than throw good money after bad. They thus escaped a 3s. per share liability. 40,000 shares were unapplied for, and these were afterwards tendered for at a premium of a few farthings by certain parties. A tender for shares at a premium of six farthings, and another at four farthings, were sent in, and would have been accepted, but they were wisely withdrawn. Another tender was made at a premium of one farthing. Your readers ought to be warned that these shares were taken up by certain parties with a view to making a market, and putting up the price and getting out at a profit before other shareholders sold, and before the first call was made. These shares only cost them 6d. each, besides the premium of a few farthings. Even if sold at 1s. each, the holders make a large profit, and escape a 2s. 6d. per share liability.

This explains the recent great efforts to rig these shares; under cover of which there has been very heavy selling. The price went up like a rocket, and will now come down like the stick. An inspection of the registers shows how successful certain parties have been in unloading their shares upon the unfortunate individuals who have been so foolish as to buy. Regarding two of the former directors; one holds 40 shares, the other is not on the register. The former secretary and the present secretary are not on the register. A director, recently added to the board, though only holding a few shares in his own name, represents a holding of over 25,000 shares, which were bought at a low price. It is easy to anticipate the result of putting this large holding on the market at any moment.—I am, &c., VIGILANT.

GRAVEL GOLD MINE.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—The mystery attached to the statements to which I referred in a former letter—viz., "that the Gravel gives a fair profit, and that it increases in value"—statements for which, as I have shown, the known facts afford no justification—is now accounted for. They were intended to gild the pill then in preparation for the unhappy shareholders, a pill which has now been administered in the shape of a call of 6d. per share, a significant comment, indeed, on the "fair profit" statement!

I have just referred to the cards from time to time issued by the directors, and I observe that 1000 inches of water (now dwindled down to 800) were brought into the mine in May, 1891 (nearly three years ago). The mine has been at work spasmodically since then, though the washing has only been fairly continuous during the last year; the result, as we are told, is that fair profits have been made.

What has become of these? And how—considering that £10,000 has already since the last meeting been spent, and that no more water is to be brought on—can another £2500 be required?

Since the directors hold between them less than 1-20th of the shares (one holds no more than 400, and two others hold only 500 a-piece), it does seem to me a little strange and not a little

scandalous that the other shareholders who hold £95,000 of the capital should be kept so much in the dark as they are, and treated with such contemptuous indifference.

As regards the question of questions to all concerned in this company—viz., an additional water supply, I see from the said cards that contracts for the ditch to bring on such supply (from the Guali) were signed in July, 1890, that in November, 1890, 3½ miles of the main cutting of this portion was completed, and that from 152 to 322 men were kept constantly employed on this ditch from November, 1890, to August, 1891 (nine months), when the works were suspended. So that if the map supplied with the prospectus is at all to scale, it is clear that a very large part—I should think considerably more than half—of the work on this ditch has been already done.

In fact, just as we seemed to be on the brink of success, the works that would have ensured it were brought to a sudden standstill, and, as 'would appear,' definitely abandoned! And that without any attempt being made to ascertain whether the shareholders would come to the rescue, and so make a grand success of an enterprise which the directors know—none know better—can never give a dividend worth having until the water supply is augmented, as proposed by the original scheme.

To take up a kind of *non possumus* attitude in the face of their own prospectus and their recent statements is as unjustifiable as it is incomprehensible, if the water supply is there—a rather big "if," I am sorely afraid.—Yours, &c., P.

MYSORE WEST AND MYSORE-WYNAAD CONSOLIDATED GOLD MINING COMPANIES, LIMITED.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—In spite of the absurdly sanguine views expressed by the directors at the meeting last December, they have at last recognised the necessity of amalgamation and reconstruction, and are now formulating a plan for obtaining further working capital. I hope they will take warning by the unfortunate condition of the Balaghat and neighbouring companies, and grasp the true position of our own mine. To attempt to deceive themselves or us by representing it as they and we would like it to appear, instead of as it unfortunately really is, will only end in still further disaster. These are the facts:—1. The funds are exhausted. 2. The capital is absurdly large, and must be ruthlessly cut down. 3. The shafts must be sunk several hundred feet deeper, and an immense amount of development undertaken, involving some years' work, and costing at least £50,000, before the mine can be in a self-supporting condition. 4. Even under the most favourable circumstances dividends cannot be expected for many years. 5. The debentures must be exchanged for shares. 6. The acquisition of land on the western boundary is a *sine qua non*, and should be arranged immediately. 7. The present directors should be removed.

The following is the only basis on which the property justifies reconstruction:—1. Amalgamation. 2. In the new company give one fully paid £1 share in exchange for every 20 West shares, and one share for every 40 Wynaad shares. This would absorb about 13,000 shares. 3. Give 20,000 fully paid shares in exchange for the debentures. This would be a better security than the present debentures (which are now unsaleable and practically worthless), and would save the company from an annual burden of £2000, and from the payment of a bonus of £5000, payable on redemption. If the debenture-holders refuse to accept them, let them foreclose. Shareholders will be wise to let foreclosure take place at once, instead of waiting until they have thrown more good money after bad. 4. Acquire land from the Gold Fields Company (sink one or more shafts thereon) in exchange for fully paid shares. 5. Offer for subscription 50,000 £1 shares, payable 2s. 6d. on application, 2s. 6d. on allotment, and in calls of 2s. 6d. at intervals of not less than three months. This would give £50,000 for working capital. 6. Appoint as directors the three largest holders of partly paid shares, and pay them by result. 7. Appoint Messrs. John Taylor and Co., as managers, and Mr. John Garland, as secretary. 8. As much land should be acquired as the Gold Fields Company will give us for 27,000 fully paid shares. 9. The new company would then start with an issued capital of £110,000.

It would have no debenture debt, provided the shafts are sunk several hundred feet deeper, and the mine is energetically developed below the 800 feet level; proper management and careful expenditure of the £50,000 working capital may possibly suffice to place the company—some years hence—in a self-supporting condition; but dividends will be a matter of the distant future.

The Chairman was formerly a director of the Balaghat and St. Augustine Companies, and at the meeting of the latter company in January he said:—"We have failed, and I am quite of opinion that, in mining warfare, as in strategy, it is very bad policy to entrust the conduct of a campaign to generals who have not succeeded."

So am I. My fellow shareholders should demand the immediate resignation of the directors, and take prompt action if they wish to avert further losses and grievous disappointments. I hope they will all attend the meeting. On no account should they give proxies to the directors.—I am, &c., A SHAREHOLDER.

GEOLOGICAL COINCIDENCES IN VICTORIA.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—There must needs be plagiarism, more or less, in all we do or say when going over old ground, and, cover it up or twist it as we may, there it is all the same. Mr. T. A. Rickards' letter in last week's *Mining Journal* complains of somebody's attack on Mr. Dunn's work at Bendigo, but the whole of that district has been reported on so often that it was hardly possible for Mr. Dunn, or any other person, to make an extended report without gathering up the threads of the history made by others who went before him. We all do it—every sensible mind will make use of the knowledge handed down for our guidance. Mr. Dunn is no more to blame than thousands who are working on improved lines, though the way may have been shown by others, just as the locomotive of to-day is an elaboration of the "Rocket."

There is, however, a tendency in the present to copy much, and, if not to call it "our own" in so many words, to make it appear so by implication, to neglect the symbols of quotation, in fact, and Mr. Dunn's treatise is not free from this neglect. In saying this it must be acknowledged that he has industriously and carefully elaborated, not only what has already been contributed by others "whose lines were not cast in such pleasant places"—pioneers worthy of due acknowledgement—but has added a good deal besides. It is a useful work, which does Mr. Dunn credit. What the Bendigo people say of it is, "that it was not wanted so far as they are concerned, and that other districts should have been surveyed instead, with a view to opening up new fields for mining." In other words, Mr. Dunn has performed his part well so far as anybody could in regard to Bendigo, but that had been sent to, and had money been expended in districts less known, the Mines Department would have done better for all concerned. Geological coincidences in regard to Bendigo are of small account comparatively, whilst similar indications in some other quarter would be welcomed and would prove a Godsend to the colony.

Yours, &c., H. D.

COMPANIES AND THEIR DOINGS.

Reports, Balance Sheets, Dividends, &c., of Mining, Railway, Banking, and other Companies.

MINING COMPANIES.

Libiola Copper Mining Company.

THE directors' report, for presentation at the sixth ordinary general meeting of shareholders, to be held at the offices of the company on Wednesday, is as follows:—"The directors have to submit the audited accounts for the year ended December 31 last. The profit and loss account shows a net profit of £18,628 2s. 10d., to which has to be added the balance brought forward from last account, £377 6s. 8d.; making a total for the year ending December 31, 1893, of £19,005 9s. 6d. Deducting from this amount of the interim dividend of 2s. 6d. per share, declared on September 16, £6300, there remains a balance to be dealt with of £12,705 9s. 6d. The directors recommend the payment of a final dividend of 5s. per share, payable on and after 21st March instant, which will absorb £12,800, and making (with the interim dividend) 7s. 6d. per share for the year, leaving a balance of £105 9s. 6d. to be carried to the next account. The directors congratulate the shareholders on this favourable result, especially as the price of copper throughout 1893 was lower than during the previous year; but the increasing local demand for ore and pyrites, which are too low in quality to ship to England, have helped to bring about the improvement. The production of the mine has, therefore, been increased for these low grades, but for the higher class ore the quantity exported has remained practically the same as for some years past. The reserves show no visible change. For the ores to be shipped to this country, a contract sale has been entered into for the current year.—Ida Gallery: The explorations have not yet developed anything of importance in the ground above, but downwards a lode is seen about 4 metres wide of moderate quality ore. Captain Jenkin recommends exhausting his resources upwards before laying down pumping and winding plant for sinking."

Mount Bischoff Tin Mining Company.

The following is the report of the directors submitted to the shareholders at the general meeting of the company, held in Launceston, on Wednesday, January 31, 1894. The directors have the pleasure of laying before you the mine manager's report for the past half-year, and the report of the smelting manager, together with the audited balance sheet to date, and the accompanying statement of accounts, which they trust will be found clear and satisfactory. The accounts submitted at the last general meeting showed a balance to the credit of profit and loss account of £38,311 10s. 8d., to which has since been added the sum of £33,042 11s., being the earnings of the past half-year, making a total credit of £71,354 1s. 8d. Of this sum £28,500 has been distributed in dividends, and the directors, in accordance with previous practice, have caused to be written off the undermentioned accounts, various amounts at the rate of 20 per cent. for depreciation in value, viz.:—Plant account, £6514 16s. 5d.; water race, dams, &c., £1397 4s. 3d.; furnace plant, £98 2s. 3d.; horses, £26 12s. 5d.; and office furniture, £21 6s. After providing for these deductions, as well as dividend tax, £1068 15s., and interest, £40 4s. 7d., there remains to the credit of the profit and loss account a balance of £33,687 0s. 9d. In addition to the ordinary expenses of the mine £1838 17s. 7d. has been expended in connection with the water-races, dams, &c., and £2154 5s. 1d. in the purchase and erection of new plant.

The Jumpers Gold Mining Company.

The directors of the Jumpers Gold Mining Company (Limited) have issued a summary of their operations for the month of January, of which the following are the items:—100 head Mill: To mining (9168 tons, 8s. 0.98d.), £3704 14s. 6d.; hauling and pumping (9032 tons at 2s. 8.91d.), £1238 7s. 9d.; transport (9168 tons at 8s. 0.98d.), £2309 3s. 5d.; milling (8937 tons at 8s. 3.76d.), £2821 6s. 9d.; charges (8937 tons at 8s. 8.52d.), £317 9s. 5d.; redemption (on 9032 tons) £2709 12s.; total, £11,100 13s. 10d. Profit for the month, £5241 2s. 9d. Grand total, £16,341 16s. 7d. Receipts by 404835 ounces gold at 74s., £14,971 8s., and by concentrates, 62455 ounces, £1370 8s. 7d. Receipts and expenditure for the month:—To cost mining and milling, £8391 1s. 10d.; plant account, &c., £290 2s. 1d.; mine development, £2238 2s. 2d.; new tailings dam, £618 2s. 6d.; buildings, &c., £68 12s. 2d.; balance, £5825 15s. 10d. Total, £17,231 16s. 7d. Received by gold and concentrates, £16,341 16s. 7d.; tailings sold, £600; old battery fittings and pump sold, £290. Total, £17,231 16s. 7d. Driven and sunk during month, 638 feet. The half-yearly general meeting will be held on March 13th at Johannesburg.

Nyassa Company.

The report on the company's operations during 1893, to be submitted at the company's first annual meeting, to be held at Lisbon, states:—"The company was incorporated with a nominal capital of £1,000,000 in £1 shares, on March 16, 1893, and 248,585 fully paid-up £1 shares have been issued to December 31 of that year, to which date the accounts are made up. These show that the company realised enough cash from its business operations during the nine months and a half of 1893 to pay all the preliminary and legal expenses of its formation, and all the expenses of its mining and survey expeditions, and £390,000 of fully-paid shares of the Nyassa Railway, which it is proposed to partially distribute among the shareholders as follows:—15 per cent. on the par value of Nyassa shares to the shareholders on record on March 31, 1894; 15 per cent. to the shareholders on record on June 30, 1894; 15 per cent. to the shareholders on record on September 29, 1894; and 15 per cent. to the shareholders on record on December 31, 1894. The company's railway survey expedition has found a feasible route from the coast to Lake Nyassa, for the greater part of the distance following fertile, well-watered, populous valleys, affording easy gradients for the railway, which will cross the pass on the Lake Nyassa coast range of mountains at a summit level of only 2950 feet. The definite location of the railway is progressing favourably. The company's mining expedition has met with equally satisfactory results, having located over 300,000 acres of the Itule coal field, which will be traversed by the railway, and has made most important discoveries of rich and extensive gold placers and gold quartz reefs near the Lugenda River. Active steps are in progress for the working of these on a large scale, and from which favourable results are expected during the currency of the present year."

Flagstaff Company.

We have received a copy of the following circular, dated March 5th, signed by Mr. C. W. Stidstone:—"The notices convening the statutory meeting of the Flagstaff Company (Limited) will be posted to the shareholders to-day. The question for their consideration really hinges upon Professor Vincent having a seat at the Board. If he is elected, I shall withdraw my name, and I have reason to know that my withdrawal will not be the only one;

the vacancies thus caused will afterwards be filled by his friends, and at a very early date he will thus obtain that control and management of the mine to which shareholders at the reconstruction meetings so strongly objected. The board, in the absence of the Chairman on the Continent, have refrained from sending out a lengthy circular, and have in the most impartial manner asked for your votes for or against the names submitted to you. Personally, I do not ask for a single vote; my simple desire is to place the issue and its bearings before you, and to ask every shareholder to use his proxy without bias. Should any shareholders wish to confer with me on the subject, I shall be happy to see them."

The Robinson Gold Mining Company.

The directors, in their report for January, say that 10 stamps are expected to be in operation in March for the purpose of testing the main reef separately, and the month's expenditure includes a portion of the cost of these, part of the expense of the new native compound electrical pumping plant, &c., in all £3157 17s. 6d., as well as the regular expense of shaft sinking, £1144 18s. 6d.; quartz mined, 8010 tons. Main incline shaft (west) sunk 49 feet, main incline shaft (east) sunk 53 feet; drives, 526 feet; raises, 214 feet; crosscuts, 140 feet; total, 982 feet; average width and assay value of veins developed during month, south reef 1 foot, 2 ounces 7 dwts. 6 grains.—Mill: 60 stamps running 30 days, crushed 8010 tons; gold won, 10,068 ounces; gold won from chlorination and cyanide works, 14,250 ounces 6 dwts.; revenue, £52,683; expenditure, £24,797 0s. 10d.; cash profit for month, £27,885 19s. 2d.

The National Bank of India (Limited).

The directors, in the 53rd report, say that the net profit for the year, after providing for all bad and doubtful debts, and including a balance of £16,237 6s. 8d. brought forward, amounts to £86,337 13s. 9d. The directors have made provision in the meantime for the £15,885 9s. 2d. in dispute in connection with the silver in transit to India at the time the mints were closed, and regarding which the Government of India's final reply is still awaited. This leaves an available sum of £70,452 4s. 7d., out of which an *ad interim* dividend at the rate of 6 per cent. per annum free of income tax was paid for the half year ending 30th June last, amounting to £15,000. The directors now recommend a further dividend at the same rate, and an addition of £20,000 to the reserve fund, making it £120,000, and £1500 to the officers' pension fund, leaving a balance of £18,952 4s. 7d. to be carried forward. In view of the recent fall in Indian exchange, and the great uncertainty as regards the future, the directors believe it will be satisfactory to the shareholders to know that the rupee capital was brought home from India before the fall occurred at an average rate of 1s. 3½d. per rupee, so that the whole of the bank capital is now held here in actual sterling, and is consequently no longer liable to be affected by exchange fluctuations. The actual transfer having been made in January, its cost, which amounts to £17,007 16s. 3d., in addition to the sum already provided for capital depreciation, will be debited to the accounts of the current half-year ending June 30; and in the meantime the charge is more than covered by the £18,952 which is now being carried forward. The following directors retire on this occasion, but being eligible, offer themselves for re-election:—John Borradaile, Esq., Sir Stuart S. Hogg, A. V. Dunlop Best, Esq. It will be necessary to elect auditors. Messrs. Cooper Brothers and Company and Mr. William Stansfield, the retiring auditors, offer themselves for re-election. Branches of the bank have been opened at Aden and Zanzibar.

The Caratal Mining Company.

The directors, in the report for one year and eight months, regret the delay in taking over and working the property, but it has been brought about by their determination to secure a complete title, and by the protracted negotiations for the treatment of the tailings. It will be obvious, they say to the shareholders that these objects are inseparable, and they may rely upon the directors doing their best to carry them through simultaneously. At present they are waiting further advice from their representatives in Venezuela. It has been, and still is, necessary to exercise a certain reserve in their communications, or the general meeting would have been held earlier. The balance-sheet shows the cash at the bankers to amount to £1152.

The Elkhorn Mining Company, Limited.

The balance-sheet shows a net profit for the year, after an allowance for income-tax and payment of all charges, of £41,738 11s. 2d., which, with balance of the previous year, makes a total balance on the revenue account of £49,452 11s. 6d. The board has paid for the year 1893 four interim quarterly dividends at the rate of 40, 30, 10, and 20 per cent. per annum respectively, amounting to £43,751 15s., being a total distribution of 25 per cent. for the year upon the paid-up capital of the company, and leaving a balance of £5700 16s. 6d.

Durban-Roodpoort Gold Mining Company.

The following resolutions have been passed by the directors:—“That an interim dividend of 3s. per share (15 per cent.), free of income tax, be, and is hereby declared, payable at the Bank of Africa (Limited) 113, Cannon-street, E.C., on Thursday, the 22nd day of March, 1894, to the shareholders registered on the books of the company on Thursday, the 15th day of March, 1894, and to holders of share warrants to bearer.” “That the transfer books of the company shall be closed from Thursday, the 15th day of March, 1894, to Wednesday, the 21st day of March, 1894, both days inclusive.”

Baker's Creek Gold Mining Company.

The directors, in their report presented at a meeting of the shareholders, in Adelaide on January 30 last, say that the quantity of ore crushed during the six months is 159 tons in excess, and the gold won 589 ounces in excess of the previous half year. The quality averaged 1 dwt. more, and the price realised 1s. 4½d. per ounce higher. The directors have been able during the six months to pay three dividends, amounting in all to £15,000, to pay £3000 in cash for the North property, and to declare another dividend of 1s. per share (£5000), payable on January 31, leaving the profit and loss account with a credit balance of over £4000.

The Meyer and Charlton Gold Mining Company.

The report for January states: Mine driven, sunk, and risen 454 feet 6 inches. Quartz mined 3918 tons. Mill: Crushed 3918 tons. Yield of gold (including 580 ounces from treatment of tailings), 2513 ounces 19 dwts. Profit for month, £2788 18s. 5d. Total working cost, £1 5s. 6d. per ton. Value of ore, £1 16s. 6d. Profit 11s. per ton. Expenditure on capital account and mine development, £1048 13s. 8d. Machinery, plant, and buildings, £580 18s. 4d.

Crown Reef Gold Mining Company.

The directors report for January a profit for the month of £7191 14s. 7d. Quartz mined, 9700 tons; quartz on hand at surface, 14,582 tons; tons crushed, 9388 tons; yield of gold per ton, 7 dwts. 187 grains. Tailings and concentrates treated by the cyanide process yielded 3126 ounces 15 dwts. from 12,150 tons. Expenditure other than working expenditure:—Mine development, £1177 9s. 1d.; machinery and plant, £13,301 6s. 11d.; buildings, £1982 5s. 3d.

Great Western Colliery Company.

The report of the directors of the Great Western Colliery Company for the past year states that, after charging revenue with the cost of repairing the damage caused by the underground fire in April last, the net profits for the year amounted to £10,336 17s. 1d.; add amount brought forward from previous year, £3229 10s. 5d., making the total £13,566 7s. 6d. Out of this amount the following dividends have been paid, viz.:—On Preference A shares, £4527; leaving a balance for disposal at the general meeting of £9039 7s. 6d. The directors recommend that this balance be appropriated as follows:—In paying a dividend on the 31st March inst. at the rate of 3 per cent. per annum on the amounts paid up on Ordinary B shares, £7252 4s.; in carrying forward to next account, £1787 3s. 6d. The output of coal for the year 1893 was 410,895 tons. It is estimated that nearly half a million tons of coal would have been raised in the year but for the fire and the strike.

The City and Suburban Gold Mining Company.

The directors' report for December, 1893, shows a profit of £6391 13s. 2d. A total working expenditure of £1 14s. 5d. per ton mined and milled, and a profit per ton of 15s. 3d. 3344 tons were treated at a profit of 16s. 9d. per ton. The ore mined and milled during the month was 3735 tons, of which 3279 tons came from south reef, and 456 tons from main reef leader.

— The secretary of the ISLE OF MAN MINING COMPANY sold on Saturday last 100 tons of Foxdale ore at £6 19s. 6d. per ton.

— The NUNDYDROOG COMPANY (LIMITED) has sold the gold obtained during the month of January last, which realised £7709 14s. 10d.

— The MYSORE GOLD MINING COMPANY (LIMITED) has sold the gold obtained during the month of January last, which realised £19,575 9s. 6d.

— The BALAGHAT MYSORE MINES (LIMITED) has sold the gold obtained during the month of January last, which realised £1084 7s. 7d.

— The annual report of the SAN BERNARDO MINING COMPANY shows a balance of £227 11s. 2d. When the silver panic occurred the staff was reduced, and only a sufficient staff of miners retained to keep the mill employed as far as sales of ore could be relied upon. No work is being carried on at present, but endeavours are being made to further develop the mine by leasing a portion of the workings, and this will be done, if it is possible to do so, at a profit to the company.

— The directors of the UNITED ASBESTOS COMPANY recommend the payment of the following dividends for the past year:—10 per cent. on the £10 preference shares; £8 per cent. on the £5 preference shares; 2½ per cent. on the ordinary shares, carrying forward a balance equal to 5½ per cent. on the ordinary shares.

— The directors of the WAIHI GOLD MINING COMPANY (LIMITED) have declared an interim dividend of 1s. per share (free of income tax), payable on the 2nd April next, warrants for which will be posted on the 31st inst. The transfer books will be closed from the 23rd inst. to the 2nd prox. inclusive, for the preparation of the dividend warrants.

— The BROKEN HILL PROPRIETARY COMPANY (LIMITED) reports that for the week ending the 8th inst. 9996 tons of ore were treated, yielding 886 tons of lead, containing 246,801 ounces silver. The price of the shares in Melbourne is £2 4s. 6d. buyers.

NEW ISSUE.

THE GUY FAWKES REEF (LIMITED).

THE capital of this company is £50,000, in 100,000 shares of 10s. each, 24,000 of which are now offered for subscription, payable 2s. 6d. on application, and 2s. 6d. on allotment. The balance of 76,000 shares is to be dealt with as follows:—60,000 to be issued to Pardy's Mozambique Syndicate (Limited) in part payment of the purchase price, 10,000 to be held in reserve for the Mozambique Company against commutation of royalties, and the remaining 6000 to be held as unissued capital. The property consists of 13 claims, each 100 metres by 100 metres, situated on Guy Fawkes Creek, near Fort Massi Kessi, in Manica. £10,000 has been fixed as the sum desirable for machinery, development, and contingent expenses. Mr. Pardy says:—“I propose to put up a ten-stamp battery. This battery ought to crush 20 tons per diem. We can safely reckon on an average of 1 ounce per ton; this will be 20 ounces per diem. Reckoning 26 working days to the month, and putting our expenses at £300, we should be getting a net income of something like £1500 per month. I have thought the matter over deeply, and see no reason why the above results should not be arrived at. £1500 a month=£18,000 a year, being over 35 per cent. on the £50,000 capital.”

THE NEW MAIL SERVICE WITH CANADA.—The agreement concluded between Mr. James Huddart and the Dominion Government, says *The Times* correspondent, for the establishment of a fast Atlantic steamship service, provides that the service shall be in operation by the spring of 1896. A number of persons made overtures to the Government with a view to obtaining the contract, but their offers lacked definiteness. Mr. Huddart came forward with a comprehensive workable scheme, which greatly impressed the authorities here, who are well satisfied that he will be able to carry into effect. By means of the steamship service to Australia, working in connection with the new line of mail steamers across the Atlantic, it is expected that passengers and mails from England will be able to reach Australia in 25 days.

THE PRODUCTION OF ALUMINIUM.—The daily production in Europe and America, says *Dingler's Polytechnic Journal*, amounts to 1170 kilos. During the first half year of 1893, the chief works had the following outputs:—Neubausen, 450 kilos; Pittsburg, 270; Metal Reduction Syndicate, 135; Cowles Company, 315. There are, as yet, no works of importance either in England or France.

HALKYN MINING COMPANY (LIMITED).—The annual general meeting of the shareholders in the Halkyn Mining Company (Limited) was held on Monday, at Chester, when the directors' report and statement of accounts were adopted, and a final dividend for the year 1893 of 4s. per share was declared, which, with three interim dividends paid during the year, makes the distribution 10s. per share, or 50 per cent.

BLACKSTON MINERS' WAGES.—A meeting of miners employed at the Blackston pits, near Paisley, was held yesterday to consider the proposal made by the masters to reduce the men's wages by 1s. per day. After a lengthy discussion the meeting decided not to accept the reduction in full, and it was agreed that the masters should be asked to modify the reductions.

THE GREAT HYDRAULIC TUNNEL AT NIAGARA.—The first practical test of the great hydraulic tunnel, which has been under construction at the Niagara Falls for the past three years, was made a few days ago. The paper mill, which is the first enterprise to benefit by the tunnel, and is the largest in the world, worked with half its contract power of 6600 horse power, to the complete satisfaction of all concerned; and the hydraulic tunnel, with its tremendous capacity of 120,000 horse power, is pronounced a success. All that now remains to complete the great work is to finish the general power house, where 5000 horse power turbines will operate 5000 horse power electric generators, for the transmission of power in this form. June 1 will see this work completed, when distinguished savants, engineers, and officials are expected to gather from all parts of Europe and America.

TAMPERING WITH SAFETY LAMPS.—William Jarvie, miner, Denny, was charged on Wednesday, before Sheriff-Substitute Buntine, with having on the 21st or 22nd of February opened his safety lamp in the pit where he was working. He pleaded not guilty, and was defended by Mr. D. W. Logie, solicitor, but after evidence was convicted and sentenced to 33 days' imprisonment without the option of a fine.

MINERS ENTOMBED.—Violation of the mining laws has buried 13 men 600 feet underground in the Gaylor Mine at Plymouth, Pa. If they are alive they cannot be rescued for several days, but experienced men who have made a careful survey believe there is hardly one chance in a hundred that they still live. In mining coal in the vein, massive pillars of coal are left standing to support the roof, forming a natural colonnade along the main gangways and planes. When the vein begins to fail, and good coal in that part of the mine is hard to get, then the robbing of pillars commences. The mines do not generally cave in without a peculiar warning, which is well known to the men when working underground. There are strange noises caused by the earth settling, and sometimes for days before the final fall pieces of coal and rock will drop from the ceilings and sides of the gangways. This is called “chipping” and indicates that a greater fall is coming, and the mine is said to be “working.” This was the condition of the Gaylor Mine for several days before the disaster.—*Mining and Scientific Press*.

ELECTRICITY IN MINING IN FRANCE.—The Compagnie des Mines de Vicoigne et de Neoux has invited tenders from the principal electrical firms for the laying down of an important installation in its mines. The proposals call for the establishment of a central station, which will provide electric power for the different works throughout the colliery. At present only two dynamos will be put in of which the electrical force will be utilised at a distance of 4400 meters, for the working of five winding gears of from 6 to 14 h.p. Five pumps, operated by electric motors of 5 h.p. will be placed at the bottom of the mine, and electric locomotives, each of 12 h.p. will be employed for the conveyance of coal at a speed of 12 kiloms. an hour along the principal gallery, which has a length of 2000 meters. The mine will also be illuminated by 26 arc lamps and 200 incandescent lamps each of 16 c.p. This will be the first installation of its kind in France.—*Mining and Scientific Press*.

CORNISH PUMPING ENGINES.—The committee, recently deputed by the Council of the Mining Association and Institute of Cornwall, to enquire into and report upon the present system of recording the duty performed by pumping engines in Cornish mines, has drawn up the following recommendations:—“At a meeting of the committee appointed by the Council of the Mining Association and Institute of Cornwall, to consider and report on the present method of engine reporting, held on the 6th January, 1894, it was resolved to recommend that steps be taken to obtain the following additional information, the same to be published in *Lean's Engine Reporter* in future, provided that the executive of the several mines concerned signify their approval: 1. The engineer of each mine shall be asked to provide Mr. Lean, from time to time, with indicator diagrams, showing the indicated load in lbs., the load per square inch on the piston, and the indicated horse power. 2. The manager of each mine shall be asked to supply the reporter, on the occasion of his monthly visit, with the average price per ton of the coal consumed during the month. 3. The *Engine Reporter* shall in future give the following information:—(a) Column showing “Indicated load in lbs.” and “Load per square inch on piston.” (b) Column showing “Consumption of coal in cwt.” and “lbs. of coal consumed per I.H.P. per hour.” (c) Column showing “Price of coals during the month.” (Signed.) John Tonkin, Nicholas Trestrail, Thomas Lean, William Thomas.

“PEEBLES PROCESS” OF COAL GAS ENRICHMENT.—This process, invented and patented by Messrs. Young and Bell, has made great progress since its inventors described it at the meeting of Scottish Gas Managers in July last. Its economic character has made the gas companies almost independent of all attempted “rings” among the cannel and rich gas coal owners. Proof of its progress is afforded by its adoption not only by Galashiels and other Scottish towns, but also by St. Helens, Lancashire, and at the Great Becton Works of the Gas Light and Coke Company, London, an experimental plant has been erected, the results of which will be looked forward with interest. The Glasgow Corporation Gas Commissioners are, we believe, about to instal it at their works, and a deputation from the Greenock Corporation Gas committee have expressed themselves satisfied with the process.

THE YORKSHIRE MINERS' ASSOCIATION.—A two days' sitting of the executive of the Yorkshire Miners' Association was brought to a close on Tuesday, at Barnsley. After transacting important business relating to the coal trade of the county, the executive agreed to send six delegates, representing the Association, to the general Conference to be held on the 17th inst. in London with regard to the Employers' Liability Bill, and the action of the House of Lords thereon. The executive recommended branches to hold meetings and take into consideration the maturation of the Employers' Liability Bill by the House of Lords, and to pass resolutions thereon and send them to the miners' offices forthwith, in order that the views of the Yorkshire miners can be presented to the London Conference.

NEW EARTH-BORING AND DRILLING MACHINE.—Mr. W. E. Everitt, 336, Hamburg-street, Buffalo, N.Y., is inventor of the latest machine for earth-boring and drilling. This machine, whose construction is very simple, is for boring long distances horizontally, or at any angle, into the earth. The machine is provided with side-ways; the gears travel along the base to the full length, whereupon they can be released from the drills or augur bars, and drawn back, when another length can be attached. The excavated earth travels back on the grooves of the auger after the manner of the carpenter's auger chips. This machine will prevent a good deal of digging up of streets, when a water pipe is needed to be put in from a house to the main. It can also be used profitably, and with acceleration of work, for laying telegraph and telephone wires across streets which are paved.—*The Industrial World*.

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LONDON: MARCH 10, 1894.

MINING AND THE METAL TRADES.

THE condition of the many industries that are grouped
under the general title of the metal trades is, of course,
of the utmost consequence to the prosperity of metal-
liferous mining. A great deal may be done to improve the
position of mining enterprise by the reduction of working ex-
penses or the increase of output, but the ultimate appeal must
be to an active state of the metal market, and this can only depend
upon a brisk demand for hardware, metal goods, and machinery.

It is unfortunate that at the present time the metal trades of
the country are still depressed. The statistics of foreign trade
show that the exports of metals have fallen off more largely than
in almost any other class of goods. No doubt, this decline is the
after result of causes which are no longer in operation, as, for
instance, the struggle in the coal trade and the consequent
paralysis of the metallurgical production. Still, the fact remains
that dulness is the dominant feature in the numerous branches
of our metal industries, and that foreign competition, as well as
financial and other disasters abroad, have seriously attacked them.
The diversion of orders to Continental metallurgists and engi-
neers is almost as serious a matter to British mining adventurers
as the actual decay of the business. London is the market for
the commodities which they produce, and anything which
lessens the consuming power of this country can only have un-
toward consequences upon their interests. Besides which, the
affairs of metalliferous mining and metal manu-
facturers are more intimately associated by the connec-
tion of the two interests in the same persons. But, out-
side of foreign competition, there can be no doubt that the
demand for metal manufactures of all kinds is at the present
moment very slack indeed. The badness of finance in all parts
of the world has led to a serious declension of consumptive
power. The Indian market has suffered severely from the com-
plete falling away of silver from its position as a precious metal,
while nearly every other market has suffered more or less from
adverse influences. We have lately seen some highly encourag-
ing signs of a revival in the metal trades, which may strengthen
and extend into a real improvement. The main factor in this
upward tendency has been the issue of the Government order
for new ships and material, and the extensive naval policy about
to be carried out cannot fail to produce a great deal of activity
in various metalliferous workshops. At the same time, a similar
policy is being pursued abroad, where the building of war vessels
is providing an abundance of employment at many of the
steelworks and engineering shops, so that our own metallurgical
concerns are being benefited not only by the placing of new
orders, but also by the withdrawal of a certain amount of foreign
rivalry.

The immediate effect of this activity at the shipyards has been
to bring about an increase in the value of steel. There are
reasons, too, for believing that other influences will come to the
aid of this interest when this activity at the shipyards may
have exhausted itself. Australia is recovering from its long
period of financial depression, during which its consuming power
have had time to recuperate, and some States in South America
are beginning to buy iron and steel and metal goods in some-
thing like their old proportions. South Africa is rapidly open-
ing up a market for every description of metal goods, especially
for railway plant and material, bridgework, and machinery, while
new sources of business for our furnaces, mills, and workshops
are being discovered in the very interior of the Dark Continent.
Then we may fairly hope to hear of large needs in the
future from Asia, which is beginning to avail itself upon an ex-
tensive scale of the industrial resources of Western Europe. The
contracts that are being executed for Afghanistan point in a
very encouraging way to the probable requirements of the
Asiatic States. Makers of railway material have had little cause
for congratulating themselves upon any activity in demand on
account of the home railways, as these have recently passed
through a period of exceptional quietude in respect of equipment
and expansion. There has, however, lately been a welcome
awakening in this branch of industry, one line having given out
an order for 10,000 tons of steel rails, and it is probable that
many similar contracts will soon be forthcoming.

Apart from the iron and steel trades, it is to be feared that
manufacturers are largely responsible themselves for the quietude
which has so long prevailed in many branches of industry. It
would be unwise to ignore the fact that hardware and cutlery
firms, for instance, have allowed a large part of their foreign
trade to drift into the hands of Continental and American com-
petitors because they have not taken the trouble to study the
special needs of foreign markets, or have neglected to make the
goods when these needs were sufficiently well known. In many
cases, too, there is no doubt that the wretched margins of profit
upon which they are working are due to their own want of
organisation. Another drawback to the trade position is the super-
fluity with which more or less coloured imitations of British
brands by foreign manufacturers have been treated. There can
be no doubt that German and Belgian producers are taking a
great deal of work from this country by using terms which have
acquired a reputation as applied to goods of British origin and
of a certain quality. Too often British export mer-
chants have not been above assisting our Continental
rivals in this reprehensible practice. It is satisfactory, however,
to see that manufacturers are now agitating the whole question
of trade mark protection, and that in particular a suggestion
has been taken up to supplement the present special brands and
marks by an indication of their nationality and origin. The chief
cause of much instability is, of course, the collapse of silver, but
this difficulty is, after all, not so serious as had been feared.
Even with an active development of gold mining, and the closing
down of silver mines, it is practically impossible that the white
metal will ever regain its former position, but, while it can be
prevented from dropping below its present level, it is not likely
that any other metal will be found of a nature to replace
it as a currency medium. Commerce will, undoubtedly, adapt
itself before long to the great economic change that has been
brought about by the depreciation of silver, and this, indeed, will
become a recognised fact immediately any industrial movement
in the silver countries necessitates a renewal of commercial in-
tercourse abroad. The position is by no means so critical as the
events of the past twelve months would, perhaps, lead us to be-
lieve, and there are quite enough indications to justify us in the
belief that very little is needed to assist forward a revival in the
mining and metallurgical industries.

THE TRADE REVIVAL.

IT is exceedingly gratifying that with the opening of the third month of the year, it is possible to announce that the revival in trade, which set in shortly after the opening of 1894, continues. There is to be perceived at the present time a maintenance of the steady undercurrent of improvement in certain of the trades of the kingdom, which is of a most pleasant character, and which augurs well for the future of trade and commerce. There is no diminution of the increased animation which has, so far this year, been noticeable in the steel and shipbuilding, and marine engineering industries of Scotland, and the north-east coast of England. Speaking at the annual meeting of the Furness Railway Company a few days ago, the DUKE OF DEVONSHIRE, who also holds the Chairmanship of the great Barrow Steel Company, and is an acknowledged authority upon iron and steel subjects, said that, as to the prospects of the present half year, in one respect there was a likelihood of some improvement. The shipbuilding trade was better, and one large shipbuilding company at Barrow—the Naval Construction and Armaments Company—had succeeded in obtaining orders that would keep them going for a considerable time. At the annual dinner of the Manchester Association of Engineers lately, Mr. F. MONKS, of Warrington, a well-known representative of the Lancashire iron trade, expressed the opinion that the country was on the threshold of a considerable improvement in trade, and that there are better times ahead. Some of the Chairmen of banking and manufacturing concerns in various parts of the kingdom are also expressing more hopeful views of the trade outlook; and amongst numbers of men of considerable experience and intelligence in the commercial world there is a definite idea that the difficulties which last year greatly militated against trade are now passing away. All this looks well, and the returns which have this week been issued of the Cleveland Ironmasters' Association for February go far to assist the position. They show a total decrease in stocks, compared with January, of 10,851 tons. The iron in public stores now amounts to 110,176 tons, as against 108,212 tons at the end of January, and 49,000 tons in February, 1893. In makers' stocks and stores the aggregate of iron held is 50,483 tons, compared with 63,298 tons at the end of last month, and 135,000 tons a year ago. These returns had an excellent effect upon the Middlesbrough market on Tuesday, and the tone of business continues generally satisfactory. Added to this is the additional evidence afforded by the Board of Trade Returns, which show a considerable improvement.

In view of the reopening of the navigating season an early improvement in the Continental demand for the products of the North of England iron furnaces is just now anticipated. During the month just closed shipments have been much freer than usual. In fact, the exports are considerably above the total reached in the second month of the year for many years past, with the exception only of 1891. The aggregate figures are 70,308 tons last month, as compared with 61,104 tons in January, 50,817 tons in February of last year, and 55,378 tons in February two years ago. From Glasgow, likewise, the shipments of pig-iron disclose a considerable improvement, both foreign and coastwise—in the former, largely owing to an increased demand from Italy; and the total furnaces now blowing in Scotland are 60, as against 65 at this time 1893. The stock of pig-iron in CONNELL'S Glasgow stores is now 316,604 tons—a decrease on a month ago of 2400 tons. Many statements have been made as to the extent of the orders that have been placed on the Clyde with shipbuilders during the last two months. As the effect of these orders is felt directly in the steel trades, and indirectly in many others, it becomes important to try and obtain something like an accurate idea of the position there. A careful view of the situation results in the conclusion that it is not far from the mark to estimate that there are, at the present time, being constructed and to be built on the Clyde, some 300,000 tons of iron and steel shipping—mainly steel—work sufficient to provide activity in the Clyde yards for the whole of this year. On the north-east coast, a rapid change for the better is taking place in the condition of the shipyards, and every week will show further improvement. It is tolerably certain that additional new work will not be booked except at a further rise, whilst Government work should also stiffen prices. This revived activity is being reflected in the state of the iron and steel trades to an increased extent. Over the border the steelworks are all busy, and have large orders on hand for ship-plates and angles. The quantity of steel, which it is clear will be required during the year, is so considerable that steelmakers may now calculate upon sustained employment; and hardly a day passes without fresh shipbuilding contracts being announced.

COAL AND PETROLEUM IN ENGLAND.

THE fact that this country is not yet "played out" as a mineral producer is being continually illustrated, though too often the greater cheapness of working in other countries prevents our resources in this respect from being developed. The unfortunate thing is that legislative interference tends rather to increase than diminish this disastrous discrepancy. Kent has provided the latest sensation of any moment in connection with England's mineral wealth, and the possibilities associated with the new coal field at Dover for a time loomed large in the public mind. If of late we have heard little or nothing about Kentish coal, it must not be assumed that steps are not proceeding for its development. Professor BOYD DAWKINS, who speaks with special authority, declares that there can be no doubt of the commercial value of the Dover coal field. If we can accept this conclusion, we may look forward not only to immediate consequences of vast commercial importance from the mining of coal in Kent, but also to the discovery of other coal fields in South and Eastern England. For the assumptions

which are held to be justified in the Dover discovery embrace a much wider range than just that part of Kent. The measures which have been struck are in direct relation with the coal fields of Somerset and South Wales on the west, and of Northern France and Belgium on the east, and it is probable that workable deposits are to be found elsewhere between these points. This view is supported by the recent discovery of coal at another spot in Kent, near Ashford, and by the encouraging results of experimental boring in Suffolk. The geological character of the district, analogous as it is to that of the Pas-de-Calais, supports such a theory, and the presence of the secondary rocks, so common a feature of our coal-bearing areas, gives indication of the probable existence of carboniferous strata over a very large portion of South-Eastern England. As to what has actually been done at Dover, Professor DAWKINS says simply that "the experimental stage is over," though we are afraid that this expression of triumph refers rather to the scientific than to the commercial side of the enterprise. However, the present position is that the boring has been carried to 2225 feet below the surface, and that at this point a 4-foot seam of good blazing coal has been struck. Altogether, 12 seams of coal, of varying thickness, have been found, and it now becomes time to develop these without further speculation for the moment upon the riches which remain concealed in the lower depths. A shaft is being sunk, and when it is completed the first step in the practical working of the South-Eastern coal field will begin. The experience afforded in the coal mines on the opposite side of the Channel proves that coal measures can be successfully worked at the depths, and beyond them, at which they have been found at Dover, while their nearness to London, and to the important seaports along the southern coast, gives them every chance of an advantageous market. Without being too sanguine, it seems that we may now begin to look forward to the growth of a new coal mining industry. If our mineral laws were less exacting than they are, no doubt we should have a wide application of English enterprise to the task of further testing these resources, instead of confining itself to more or less desperate prospecting abroad. As it is, it seems a pity that ground landlords and capitalists cannot come to some agreement which would not make it seem that the latter's work would be all for the benefit of the former. In most other countries we should have a Government Department to undertake the preliminary geological investigations warranted by the results and the data already available. It is not only in coal that evidence is forthcoming of the undeveloped mineral wealth of Great Britain. The discovery of an oil well at Shepton Mallett is one of a series of incidents which, if they had occurred abroad, would certainly have produced a considerable influx of British capital. The presence of petroleum in Somersetshire, of course, does not imply that it can be profitably worked, but then, neither does it anywhere else. We believe that the oil deposits referred to will be subjected to exhaustive examination, and that money will be forthcoming for their working if the consequent reports are favourable. It is hopeful for this result, that petroleum has been found, under more or less promising conditions, in Derbyshire, Staffordshire, and Shropshire, as well as elsewhere in Somersetshire than the present site, while all the indications point to the deposits now found extending over a wide area. In Scotland, the mineral oil industry, though by no means munificently favoured by Nature, continues to maintain its position, and we think it very likely the same thing may be done in England. Labour struggles, absurd legal restrictions, greedy vested interests, and the contempt which arises from familiarity, have conspired to draw public attention away from our native mineral resources. Let us hope that the success of either or both of the new enterprises we have been dealing with may inaugurate a reform in this respect.

NOTES AND COMMENTS.

THE copper market has not displayed a conspicuous amount of activity of late. Everything in this connection has been moving in a downward direction for a considerable time now. Copper mining companies, and those numerous concerns whose prosperity depends greatly upon this commodity, have had much to complain of. Copper shares have met with but little favour from the public. The latter have regarded them with excessive cautiousness. Amidst all this it is a matter for congratulation that the Libiola Copper Mining Company ostensibly is doing well. The directors of this company have just issued their report. This document contains much to encourage the shareholders. The profit and loss account shows a net profit of £18,628 2s. 10d., which, added to the balance of £377 6s. 8d., brought forward from the last account, makes £19,005 9s. 6d. Deducting from this the sum of £8300, as the amount of the interim dividend of 2s. 6d. per share declared in September last, there remains a disposable balance of £12,705 9s. 6d. Out of this the directors recommend the payment of a final dividend of 5s. per share, making 7s. 6d. for the year. The board congratulate the shareholders—and they have perfect reason to do so—on this favourable result, especially, as they point out, seeing that the price of copper during last year was lower than during 1892. There has, however, been an increased local demand for ore and pyrites, which are too low in quality to ship to England. This has potentially helped to bring about the improvement. The production of the mine has, in consequence, been increased for these low grades.

From all accounts it would appear that the Orion Gold Mining Company has been working with marked success. But little is publicly heard of this concern. Nevertheless, what is made public may be regarded with satisfaction. For the first month of this year, notwithstanding the fact that scarcity of native labour and hardness of pyritic rock prevented the 40 head mill

being run up to its full capacity of 5000 tons, a total tonnage of 3740 tons was put through the mill, all costs, exclusive of those of cyanide treatment of tailings, being covered by 15s. 7d. per ton. During the same period 1496 tons were dealt with in the cyanide works. The total profit for the month amounts to £3343 18s. 11d., which, considering that the capital of company is only £30,000, is quite satisfactory from a shareholder's point of view. The mine is stated to be fully two years ahead of the mill. We hear, likewise, the encouraging news that the mill is working most satisfactorily, all the machinery being in excellent running order. It will, no doubt, be in the recollection of many of our readers that the electric light has been introduced on this property, and news is received that this is giving complete satisfaction.

EVERYTHING connected with the Jubilee Mining Company gives cause for satisfaction. At the annual meeting of the company, held in South Africa, the Chairman, Mr. J. M. Egner, delivered a statement full of encouragement. He congratulated the shareholders upon the very sound position of the company. At the previous meeting he made a promise that the dividend then declared—of 60 per cent.—would be doubled in 12 months' time. This anticipation has been more than realised, for in addition to the 120 per cent. for the past year, a further sum of £7720 profit, equal to another 12½ per cent. dividend, has been earned. The directors, however, do not intend to distribute this. They think it wiser to keep it in reserve, as the money will be required for additional stamps and a new engine. It is too much to hope that such an action would pass uncriticised. One of the weaknesses of human nature is "the more we have the more we want." Shareholders evidence this, as a rule, in a most pronounced manner. Mr. Freeman thought the policy of the directors of keeping a large sum in hand most unwise. He hoped it would be amended in the future. As far as his knowledge of the mine went, he saw no possibility of any collapse taking place, and, consequently, he did not see the use of keeping so much money lying idle. For our part, we think the directors are acting in this manner prudently.

THE shareholders of the Johannesburg Pioneer Gold Mining Company have been making a change in the management of the concern. We neither approve, nor disapprove, of their action. No doubt they are convinced in their own minds that they have done the right thing. It is to be hoped they have. The future alone can decide upon the wisdom or imprudence of their decision. They certainly have cause to be dissatisfied with the past policy of the management. They have not, however—and in this they are to be commended—expressed their disapproval hastily or immoderately. On the contrary, they seem to have weighed matters reasonably, and to have arrived at a calm decision. The Chairman, in his speech at the half-yearly meeting of the company, admitted that the affairs of the company had not been so prosperous during the past six months as it was expected they would have been. During the first half of 1893, the amount earned was £20,151 5s. 1d. From that had to be deducted £13,048 10s. 7d. spent in general and working expenses, £1611 5s. 7d. written off for depreciation, and £2891 8s. 7d. written off from permanent works, leaving to the balance of net profit £2560 0s. 4d. In the second half £19,520 17s. 8d. was earned from gold realised, £13,677 11s. 10d. was spent in general and working expenses, £826 was written off for depreciation, and £2531 11s. for permanent works, leaving as balance of net profit £2465 14s. 10d. Seeing that the difference between these two amounts is so small, it would seem that there is scarcely anything to take exception to. But the directors had looked forward to more prosperous results, and this disappointment has been the source of dissatisfaction.

THE annual skirmish among shareholders in the Marbella Iron Ore Company, as to the position of the Scotch directors, took place on Tuesday last, and stands adjourned until the week after next. It was even more animated than in past years, and seemingly more pregnant with results. If the speeches of Tuesday may be taken as a criterion it would appear that the desire of the London shareholders for an exclusively London board is about to be realised. The amount set against the item of travelling expenses in the accounts is one which would naturally attract the jealous eye of a shareholder at a time when dividend-paying has ceased. The period of depression which has prevailed during the past months, and which is responsible for the unhealthiness of many companies, and for the deaths of some, has not allowed the Marbella Iron Ore Company to escape. Necessarily largely dependent for the success of their operations upon the rates of freight, anything which tends to raise them throws a serious obstacle into their way, and such precisely has been the effect of the coal strike. Considerations of this sort do not convey much consolation to a shareholder. That myriads more are suffering with him hardly diminishes the despondency occasioned by the fact that he gets no return for his investment. What is more to the purpose is that the sky seems clearing, and in the general movement towards better things, the Marbella Iron Ore Company will necessarily participate.

THE sudden swallowing up of the Nooitgedacht Estates Company by its parent, the Gold Estates (Transvaal) Company, is the natural consequence of the long period of depression which has been hanging over companies in general and this one in particular. Unhappily the depression has been of that tantalising sort, which, while continually holding out promise of ultimate improvement, never really gets better. The result has been the leading on of the directors of the company, in the hope that the deep-set faith in the property held by them was soon to be justified in the event. Successive disappointments of this character reach, at length, a point when further hazard becomes error of the gravest sort, and such a point seems to have been reached by the Nooitgedacht Com-

pany. Worked as a separate venture, the concern of that company could hardly justify its existence. Under other conditions—carried on in union with an undertaking already fully established on a firm basis—the affair might easily become a payable one, the dual establishment expenses being considerably reduced. At the least, the thing will be given a fair trial, and it is better that the concern should be absorbed by its progenitor than that it should fall into the hands of strangers. If, under the interested and careful management of the parent company, success is not attained, it may be safely concluded to lie beyond reach.

THE Chairman of the San Bernardo Mining Company took occasion, at the annual meeting, held on Tuesday, to cast a glance at the time when silver was a precious metal, conveying by inference that it could no longer be so considered. To-day it is no more than a commodity, and, some would say, a very profitless one. It is not owing to the silver, but to the lead, that the San Bernardo Company have been able to make their income balance their expenditure. While such is the position for the present, there is no great reason why we should count upon its lasting long into the future. Most who deplore the present unhappy position of silver are willing to assign temporary causes for it, differing generally upon every point, except the absence of permanency. A general agreement of interested authorities, such as this, is reassuring, and may arouse a hope for better things which, like many another hope, though long deferred, may in the end get realisation. The policy of striking a balance between income and expenditure, and so awaiting an improvement, is not without possibilities of complete justification. By recourse to it the mines are carried on without additional expense to the shareholders, whilst their higher capacities are reserved for the future. Even now, as will be seen from our City Article, the price of silver is on the move upward, establishing upon a firmer basis the shares of the different companies interested in the metal, and arousing the hope that there is not much longer to wait.

THE passing attention of the investor will, perhaps, be attracted to the report of the meeting of the Pardy's Mozambique Syndicate, which took place on Tuesday in the Great Hall of Broad-street-avenue. Mr. Pardy's account of the country in which the company's claims are situated is of a kind to inspire hope in the breast of the speculator. As described in the speech of the founder of the company, Africa seems to be a land filled with precious commodities, and the endeavour to direct the stream into their own direction is one which may in the end yield highly remunerative results. Of Massi Kessi a growth is predicted which will rival, if not outstrip, the phenomenal upshooting of Johannesburg. All this turns on the success of this district from a commercial point of view which, if the words of experts are to be believed, is already much more than half assured. Civilised man is penetrating further and further into the heart of Africa, and if the pace of his advance be maintained, no long time will elapse before the whole of the Dark Continent will have become, comparatively speaking, light. The geography of the country, in all but its physical aspects, is continuously in a state of flux. Hardly has one map, with all the latest sprinkling of towns, delineation of rivers, and configuration of mountain systems, come off the stone, when its subject has undergone a sufficient transformation to necessitate the appearance of its successor. With such a series of kaleidoscopic changes proceeding, and the present resting upon such an unstable basis, predictions as to the future are too hazardous to justify the habit of forming them on an extensive scale. It is both easier and safer to await results.

THE successive strikes that interrupted the French coal mining industry during the past year were not without influence in reducing the weight of the output. In the annual statement of the progress in trade, commerce, and manufactures made in France in 1893, just published in the *Journal Officiel*, the comparative quantities of combustible mineral brought to the surface during the last two years are set forth. Coal and anthracite were raised to the amount of 25,697,233 tons in 1892, as against 25,249,731 tons in the following year, while lignite was extracted during the same periods in the proportion of 481,468, against 488,342 tons, or a diminution of 440,628 tons in the supply of native coal, which had to be made good by imports of the same mineral from England, Belgium, and Germany.

FORTHCOMING MEETINGS.

* We shall be obliged if Secretaries or other Officials of Mining, Railway and other Companies will be good enough to advise us as early as possible of the date, time and place of their forthcoming meetings—whether statutory, semi-annual, annual, general or extraordinary, confirmatory or adjourned—in order that particulars may be announced for the benefit of our subscribers and more particularly our country readers. Balance sheets, reports and other matter to be submitted at such meetings should, where possible, accompany the intimations of the meetings sent.

Name of Company.	Date.	Nature of Meeting.	Place.	Time.
West Australian Gold Fields	Mar. 12	General	Cannon-street	2.30 p.m.
Caravel Mining Company	Mar. 12	General	Winchester Ho	3 p.m.
Libiola Copper Mining Company	Mar. 14	General	Dashwood Ho	2.30 p.m.
Glenroek Company	Mar. 14	General	Cannon-street	12 noon
Exploration Company	Mar. 15	General	Cannon-street	3 p.m.

PUBLICATIONS RECEIVED.

"Knowledge." An illustrated magazine of science. March number. Witherby and Co., 326, High Holborn, London, W.C.
 "The Insurance Directory, Reference, and Year Book for 1894." London: T. J. W. Buckley, Wine Office Court.
 "Shall I Try Australia?" By George L. James. London: L. Upcott Gill.

OUR CITY ARTICLE.

FRIDAY EVENING.

THE MINING MARKET.

Fluctuations in the Kaffir section.—Diamonds rally and react.—Indians unchanged, but on the whole steady.—Miscellaneous rather quiet.

THE past week has been one which has exhibited varied characteristics. The Mining Market has displayed fluctuating tendencies of an unaccountable nature. One day remarkable activity has distinguished it, whilst on the next a lower tone has prevailed. For instance, on Monday there was a firm tone, with little trade. This was followed on Tuesday by flatness, on Wednesday by buoyancy, and on Thursday by a slight reaction. We are speaking now of the South African section of the market more especially, but a description in somewhat identical terms might be truthfully applied to the miscellaneous securities. Amongst South African Gold Shares Cities have again been conspicuous, as well as New Primrose, Crown Reefs, Simmer and Jack, Robinsons, and Henry Nourse. Land shares have, on the whole, been firm. Chartered have been freely dealt in, and on the week's business show improvement. One feature of the week has been the improved tone displayed by diamond shares. They seem to have quite recovered from the depression which has overtaken them for some time past. Both Jagers and De Beers record conspicuous and promising advances. The profit from the former mine for February amounted to £17,150, against £13,775 for January. The rumour which has spread abroad that the life of the Jubilee Mine will be a short one does not seem to have dispersed on receipt of the encouraging news in the report of the directors. We have received this week a report of the meeting held on the 30th of January at Pietermaritzburg, and from this we see no reason why this nervousness should still prevail. The price of the shares has fallen in consequence of this unwise and unaccountable feeling, but it is to be hoped that confidence will readily be restored. It would be a grand thing for mining were many properties in a similar position to this. The news from the Pioneer Company is in direct contrast. There has been a change of directorship and a falling-off in the quality of the ore. The shares have consequently declined. Indian shares have this week been unaccountably neglected, but taking them as a whole the prices are in about the same position as last week. Ooregum and Mysore Reefs have been in demand and have improved. Amongst the other miscellaneous securities Broken Hill Proprietary's have displayed a better tone, consequent on the improved price of silver. The least said about the others the better. Aladdins have again been firm on the news of the encouraging crushing.

British Mines.

The improvement in the price of tin shares, comparatively slight as it is, has caused a much more animated tone in the Cornish share market, and it is generally hoped that the metal has touched its lowest point, and that a substantial recovery may ensue. The principal dealings have been in Dolcoath and Killifreth, the former rising about 40s. from the lowest point touched during the week; whilst the latter, after falling from 3½ to 3, have recovered to 3½. There has been a little business in Carn Brea at 12½. East Pools are dull at 10½. Polberro steady and firm at 12s. 6d. South Crofty are rather better at 1½. Tincrofts at 10½ are quiet. West Kitty are lower and fallen; falling to 6½, close dull at 6½. Wheal Grenville are about 13½. The market generally is still limited, but with a moderate rise in tin, a good deal of activity would probably be manifested. Risen—Dolcoath, 10s. Fallen: Blue Hills, 1s.; Carn Brea, 10s.; Cook's Kitchen, 5s.; Killifreth, 2s. 6d.; West Frances, 10s.; West Kitty, 10s.; and Wheal Grenville, 10s.

South African Shares.

The week commenced with a firm tone in this section of the market, although business was rather limited, the firmness being confined to stocks which had the backing of powerful combinations. Cities showed a further improvement, the latter amounting to ½. Crowns advanced to a similar extent. Robinsons, Simmers, Henry Nourse, and Meyer and Charlton were all in demand. Jubilees were sold, but reacted ½. A slight reaction took place in Ceresus, George and May, Wemmer, Ferriera, and Modderfontein. Chartered displayed a slight fluctuation, but an improvement took place in Mozambique, Oceanas, and other land shares. Silatis and Southern Reef displayed firmness. One feature of the day was the enquiries made for diamond shares, the interest being rekindled by the oft-repeated story of an intended amalgamation between the two concerns. On Tuesday this market exhibited rather a flat tone, doubtless owing to the fact that purchasers were satisfied with the progress made in the direction of higher prices. Amongst gold shares Goldenhuis Estate, Goldenhuis Deep, Simmer and Jack, and Henry Nourse were supported. Stanhopes and Spes Bona hardened. Villages were slightly improved. On the other hand there was a further fall in Jubilee, the flat tone being unaccountable. We should have expected to see a rally in these shares, for the directors' report is a most satisfactory statement. Rietfonteins again displayed dullness. Cities, Crowns, Chimes, Glenrocks, Wemmers, George and May, and Heriot were each a shade lower. Land descriptions were rather dull. A decline of 1s. 6d. took place in Chartered, Exploring dropped ½, and Zambesia ½. Oceanas left off ½ worse, but Consolidated Gold Fields remained unchanged. On this day there was a rally in Diamond shares. De Beers advanced on Paris buying to the extent of ½, while Jagers were bought on the increase of profit announced for February, the shares going up ½. On Wednesday, however, the buoyancy returned, and the depression that was noticeable on the previous day quite disappeared. Among gold shares New Primrose were the chief feature, the shares improving ½. Jumpers likewise advanced, a recovery of 3-32 taking place. Simmer and Jack, New Chimes, Nigel, Cities, and Crown Reefs all recorded improvements, but Wemmers, Robinsons, and Villages receded to a slight extent. Chartered fluctuated. At one time the shares touched 28s. 6d. The market afterwards took an upward turn again, and in the street 29s. 3d. was bid. Oceanas were lower, while Silati improved. In this department of the market, however, diamond shares were the chief feature of the day, both De Beers and Jagers exhibiting remarkable activity. Jagers went up no less than ½, whilst De Beers marked a recovery of ½. Towards the close of the week this market has displayed less activity, and prices are, on the whole, a shade off, profit-taking, in view of the approach of the settlement, prevailing. Diamond shares, however, remain strong. The higher-priced gold shares have maintained their improvements, but the lower-priced have been affected.

The following are the week's changes:—Risen: African Gold

Recovery, 2s. 6d.; Afrikaner, 1s. 3d.; Aurora, 2s.; Bantjes, 1s.; Booyens Lands, 3s.; City and Suburban, 2s. 6d.; Consolidated Deep Level, 1s. 3d.; De Beers, 10s.; Edwin Bray, 1s.; Goldenhuis Deep, 5s.; ditto Estate, 2s. 6d.; Johannesburg Trams, 6d.; ditto Waterworks, 4s.; Langlaagte, 2s. 6d.; New Jagersfontein, 25s.; New Primrose, 5s.; Rand Mining, 10s.; Robinson, 7s. 6d.; Salisbury, 5s.; Silati, 6d.; Simmer and Jack, 7s. 6d.; Stanhope, 5s.; United Roodepoort, 3s. 9d.—Fallen: Alexander Estate, 6d.; Bechuanaaland, 1s.; Block B, 6d.; Buffelsdoorn, 1s.; Central African Zoutpansberg, 6d.; Chartered, 1s.; Consolidated Gold Fields, 1s. 3d.; East Rand, 1s. 6d.; Exploring, 5s.; Ferriera, 7s. 6d.; Glencairn, 1s.; Griqualand West, 2s. 6d.; Joe's Luck, 6d.; Jubilee, 17s. 6d.; May Deep, 1s.; Modderfontein, 6d.; New Ceresus, 1s. 3d.; Northern Transvaal Land, 1s.; Nyassa, 1s. 3d.; Oceana Development, 2s. 6d.; ditto, Land, 2s. 6d.; Potchefstroom, 1s.; Read's Drift, 1s.; Rietfontein, 5s.; Roodepoort (Kimberley), 6d.; South African Exploration, 5s.; South African Trust and Finance, 6d.; Southern Land (15s. paid), 6d.; ditto (2s. paid), 2s.; Spes Bona, 3s. 9d.; Transvaal Estates, 6d.; ditto, Exploration, 6d.; ditto, Land (15s. paid), 6d.; United Ivy Reef, 1s. 3d.; Village, 2s. 6d.; Wemmer, 5s.; Witwatersrand (Knight's), 6d.; Wolhuter, 1s. 3d.—Dividend declared: Durban Roodepoort, 3s. per share.

Indians and Miscellaneous.

The week did not open with anything like active business, though the market was not by any means dull. Amongst Indian shares, Ooregum recovered ½, but Nundydroog relapsed to that extent. Mysore were unchanged. Amongst other miscellaneous descriptions, Broken Hill Props. were steady. Don Pedro declined 9s., while New Queen were 6d. down. West Australian Gold Fields were in demand at par to ½ premium. Amongst copper shares, Rio Tinto recovered ½. Tuesday witnessed a fair amount of activity in this department of the market, good business being negotiated. Amongst Indian shares Ooregum were again conspicuous, the shares improving ½. Mysore Reefs were also sold. Broken Hill Props. opened with a stronger tendency, and when the higher price of silver got known the quotation for the shares hardened considerably. Aladdins were firm. In sympathy with the better tone in the South African market miscellaneous shares also displayed activity on Wednesday. The Indian market was steady for the bigger priced shares. Broken Hill Props. were a strong market all day, and finished ½ up. Aladdin improved ½, whilst small rises took place in Montana and Fontino. Wentworth Priority and Ordinary were somewhat flat and lower. At the close of the week this department of the market has been quiet again, and has displayed few, if any interesting features. The following are the week's changes:—Risen: Achilles, 8s. 9d.; Aladdin's Lamp, 1s. 3d.; Brilliant Block, 1s. 3d.; Broken Hill Proprietary, 1s. 3d.; Comorand, 6d.; Elkhorn, 6d.; Fontino, 1s.; Golden Gate (C.T.), 6d.; Harquahala, 1s.; Mill's Day Dawn, 2s. 6d.; Mount Morgan, 3s. 9d.; Mysore Reef, 6d.; ditto West, 6d.; Ooregum, 1s. 3d.; Orita, 6d.; Pinos Altos, 6d.; Rio Tinto, 3s. 9d.; Sierra Buttes, 1s.—Fallen: Cravens, 6d.; De Lamar, 6d.; Don Pedro, 1s.; Gold Fields of Mysore, 6d.; Middleborough Land, 6d.; New Queen, 6d.; Nundydroog, 2s. 6d.; Wentworth Priority, 1s. 3d.—Dividends declared: Brilliant, 6d.; Elkhorn, 9d.; Libiola, 5s.; Waihi Gold, 1s.

STOCK EXCHANGE SETTLING DAYS.

CANTANGO.	TICKET.	SETTLEMENT.
Tuesday, Mar. 13.	Wed., Mar. 14.	Thurs., Mar. 15.
Tuesday, Mar. 27.	Wed., Mar. 28.	Thurs., Mar. 29.

COALOWNERS' COMBINATION IN NORTHUMBERLAND.—On Saturday a meeting of the colliery owners of Northumberland was held in the Coal Trade Offices, Newcastle, for the purpose of considering a proposal that they should form a combination to regulate the prices of the coals of the county. The chair was occupied by Mr. R. O. Lamb, President of the Northumberland Coalowners' Association, and there was a large attendance of representative owners. The proposal is that the owners of collieries in Northumberland should join the Sales Association, which has been established in Durham with the object of fixing and maintaining minimum prices for various descriptions of coals, and at the meeting on Saturday a decision was arrived at, that it was desirable that some means should be adopted for the purpose of regulating the prices of coals, but the further consideration of the matter was adjourned for a fortnight. A number of the coalowners of the county have expressed their intention to have nothing to do with the proposed combination, as, in their opinion, although by united action the owners in Durham may be able to maintain a minimum price for gas coals, the conditions in the case of steam coals are so wholly different that such a combination is hopeless, and would only lead to the sacrifice of the trade from Northumberland to other steam coal centres.

THE BALHANNAH MINE.—The *Mount Barker Courier* states that the old Balhannah Mine has been purchased by an Adelaide Syndicate from the former Victorian owners, and that in future the property will be managed by resident holders instead of by absentees. The property has been found to be rich in bismuth and gold, according to all returns and assays up to date. Specimens of ore are to be seen at the School of Mines, Adelaide. Like the Mount Morgan Mine, the Balhannah suffered heavy losses from thefts. From the old tailings thrown away as rubbish by the former management, and which have been lying as waste since 1876, the present syndicate collected 100 lbs. weight for testing by Messrs. Harrold Brothers, whose assay, made on August 21, was:—Gold, 36 ounces 15 grains; bismuth, 85 per cent. Messrs. Harrold Brothers after treatment offered 10s. a lb. for this parcel. Mr. H. Y. L. Brown, Government Geologist, in 1887, made several trials of samples, and found gold in every case. The bismuth ore in the Balhannah Mine, which of itself is very valuable (say approximately £700 a ton), carries gold in it varying from almost nothing to 120 ounces of gold per ton of bismuth ore. Retailers in Adelaide pay 12s. a lb. for refined bismuth, and both English and American firms have offered to buy large quantities. Besides the above assay others were made with much the same results. It is, of course, not to be supposed that the first 100 tons of ore raised will assay so high, but those who know the mine think there is enough gold to pay all the working expenses apart from the bismuth.

MODERN SHAFTING AND GEARING.—Encouraged by the success which has attended the issue of a previous work, "A Handbook for Steam Users," Mr. M. Powis Bale, A.M.I.C.E., M.I.M.E., has written a book upon "Modern Shafting and Gearing, and the Economical Transmission of Power," (William Rider and Son, Limited, 14, Bartholomew Close, E.C.), the style and contents of which are such as to enable us to congratulate him upon the achievement. "There is little doubt," says he truly enough in the preface, "that a large amount of power has been, and is unknowingly and unnecessarily wasted through improperly and crudely arranged methods of transmission." With a practical rather than a theoretical treatment of his subject, and by formulating a set of adaptable rules, the author seeks to remedy, in so far as the circulation of his book will allow him, this unfortunate state of things. Mr. Powis has closely followed an excellent custom of modern technical writers, and has drawn as largely upon his personal experience as possible. Most of the recent improvements and appliances narrated in his pages have been tested by him in his business, and what he has to say of them gathers from that fact additional force. The author has welded his matter into an admirable plan, so striking as to linger in the memory, so natural and convenient as to immediately justify itself. We should have been thankful for a greater elaboration and extension of the subject, but Mr. Bale has been bound by the limitation of the series in which his book appears, and to expect more from him would be unduly exacting.

MINING NOTES. HOME, COLONIAL, AND FOREIGN.

DURING February the output of the five productive mines on the Colar Goldfield, Mysore, was 15,828 ounces, showing a decrease of 1198 ounces as compared with January, due to the Oregum, Mysore, and Nundydroog returns, and a decrease of 828 ounces as compared with February of 1893. The production since the beginning of 1890 has been as follows:—

	1890.	1891.	1892.	1893.	1894.
	oz.	oz.	oz.	oz.	oz.
January	8,256	10,186	11,874	15,844	17,026
February	9,547	10,121	11,780	16,656	15,523
March	9,422	10,117	11,579	17,463	—
April	7,853	9,392	11,813	18,287	—
May	7,861	10,509	12,483	17,922	—
June	8,287	10,746	11,847	16,879	—
July	8,081	11,097	13,277	16,676	—
August	8,079	11,222	14,854	16,692	—
September	8,352	11,398	15,529	17,040	—
October	9,380	12,095	15,922	17,440	—
November	9,770	11,667	15,942	17,587	—
December	9,362	11,589	16,435	17,649	—
	104,932	130,137	163,140	207,135	32,854

The outputs of the individual mines for the past six months have been:—

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
	oz.	oz.	oz.	oz.	oz.	oz.
Oregum	6,538	6,553	6,563	6,577	6,589	5,905
Mysore	4,632	4,860	4,904	5,010	5,012	4,709
Champion Reef	2,907	2,967	3,014	3,037	3,040	3,122
Nundydroog	2,371	2,433	2,515	2,525	2,697	1,728
Salaghat	612	627	561	510	288	364

The *Adelaide Observer* of January 27th, just to hand, remarks:—“A deputation of Southern Cross residents took advantage of the presence of Mr. Venn at Southern Cross to interview him on mining matters. The Commissioner said the Government could not place a goods shed or station nearer to the township than the present site, owing to the awkward grades, but they would run a light line thither. In regard to the question of cutting a direct track from Southern Cross to Siberia and Ninety Mile, the Government could not promise to do that in view of the absolute certainty of the extension of the Yilgarn Railway to Coolgardie very soon. He also explained the proposals of the Government regarding water. They intended to excavate several tanks. The advent of the railway is bringing a crowd of roughs into the town. One night several of them rushed the Warden whilst he was taking his wife home, and pushed him over. He knocked one man down, but while he was putting his wife in a place of safety they all escaped. Messrs. Wilson and Reid went through Southern Cross last Thursday. They have taken up large areas on a rich reef. Large numbers of miners are on their way east again. Fraser's have crushed 480 tons for 215 ounces.

LAST year, 244,151 piculs of tin and 72,872 piculs of tin ore were exported from Perak. Their estimated value exceeded 11½ millions of dollars. The tin duty collected reached \$1,345,000. The Kinta district stands first in productiveness.

The alterations to the mill engine at the Spes Bona Mine, which have been designed less with the object of increasing the power available than of decreasing the consumption of fuel, will soon be completed. It will then be of tandem compound type, a condenser and air pump being at the same time added. It is calculated to develop 180 h.p., the fact that it will be possible to work with steam at 120 lbs. instead of 80 lbs. pressure, necessarily giving somewhat increased power. The weight of the stamps having been lately increased from 850 to 950 lbs., a certain portion of the excess will be absorbed by the mill, whilst the balance will be utilised to drive a small six-drill Ingersoll-Sergeant compressor plant, originally purchased from the Heidelberg Roadport Company, which will be connected by a belt with the mill engine.

The new tailings dam at the Jumpers Mine is now nearly completed, its immediate use being necessary in consequence of the failure hitherto of the African Gold Recovery Company to run its plant to its full capacity. The plant was designed to deal with 8000 tons per month, at which rate considerable inroads would soon have been made upon the stack of accumulated tailings. So far, principally in consequence of difficulties in handling, only some 3000 tons per month have been dealt with—a somewhat material difference. Better progress has, however, recently been made. The mine in the lower levels has recently been opening out most satisfactorily, the workings having now apparently entirely passed through the zone of faults which in the upper levels considerably increased the mining expenses. In the eastern portion of the mine a clear stretch of 1500 feet, giving 180 feet of backs of completely undisturbed ground, has been opened out, the reefs at this point dipping at an angle of about 33 degrees. In consequence of the flatness of the reefs, the main vertical shaft has been stopped at a depth of 400 feet, and development is now being carried on on the underlay from the point of intersection of the reefs with the crosscut put in from the bottom of the shaft. Hauling on the incline is effected by means of air winches, which are found to work most satisfactorily.

The *South African Mining Journal* gives some particulars of the large 30-drill compressor plant lately erected at the Goldenhuis Deep property. The engine is of vertical three-cylinder triple expansion type, the high pressure cylinder being 14½ inches in diameter, the intermediate 23½ inches, and the low pressure cylinder 35½ inches, the stroke being 35½ inches. The valve gear is of Corliss pattern for all three cylinders, the admission valves of the high pressure cylinder being controlled by an automatic governor. A jet condenser and air pump will be worked from the cross-head of the low pressure cylinder. Working with a steam pressure of 120 lbs., at a speed of 60 revolutions per minute, the engine is designed to indicate 250 h.p. In case of necessity, all its parts are sufficiently strong and substantial to enable it to indicate 300 h.p. The consumption of steam is calculated not to exceed 14 lbs. per indicated horse power per hour. The compression of the air will be effected in two stages and in three cylinders. Two of these are low pressure and the third high. All of these will be placed above the steam cylinders, with each of which one will be in line. The low pressure air cylinders are each 22½ inches in diameter, and the high 18½. The former will aspirate the air at atmospheric pressure, and discharge it compressed to the first stage into the cooler and thence into the high pressure cylinder, when it will obtain a pressure of 80 lbs. per square inch above the atmospheric pressure. The valves in the air cylinders will all be operated by the Reidier mechanical closing devices, which will serve to prevent any shock when the plant is in motion.

Mr. WILLIAM WHITE, a mining manager of long and varied experience, who has shortly been upon a visit to Coolgardie, has published some of the results of his observations in the *South Australian Register*. Bayley's Reef he describes as a nice quartz reef from 5 feet to 7 feet wide, and undoubtedly rich. It would be a pity not to reproduce the exact sentences in which Mr. White describes the lodes in the district:—“Bayley's No. 1 South has struck the reef carrying gold. Although the ground south has been taken up the reef has not been seen at the surface for a third of a mile. Further south several claims have been taken up with very little work done on them until one reaches McCulloch's, an Adelaide and Melbourne claim. They have put down several shafts, and found the lode up to 10 feet wide, from which some rich stones were shown. There is another system of lodes to the west that has been worked on—Mitchell's, Morgan's, and others—and the dolly brought into use. There are several claims of a like nature still further south and west. At Bayley's North a crosscourse has thrown the lode about 300 feet to the right. To the north of that point the reef, which crops up prominently in places, still carries gold, but does not appear to be so rich as south of the break. Beyond Bayley's group of mines north there is very little work being done, although the ground is taken up for some distance in that direction.”

Going further a-field, Mr. White says that “at Hannan's Rush, which is 30 miles from Coolgardie, there is an alluvial camp. As at Coolgardie, there were hundreds of men engaged in prospecting and dry blowing—i.e., winnowing as our fathers winnowed corn, but the dry-blowing machine was coming into use. Touching quartz reefs, amongst the first to be visited are Cassidy's, Maritana, Mount Charlotte, Croesus, Croesus Extended, and contiguous claims. Most of these have yielded large amounts of gold by dollying, the stone being very rich.” Speaking of the field generally, Mr. White says that “until either public or private enterprise meets the water difficulty even comparatively rich mines will not pay, and may find it necessary to get enlargements of capital. Owing to the high charges for provisions, fodder, water, and cartage, mining operations are necessarily expensive. Prices will be moderated when the railway is opened to Southern Cross, and, of course, it is only a question of time when the supply of water and improved means of communication will enable a number of mines scarcely more than prospected to be profitably developed.”

The Stanley River tin mines are (states the *Zeehan Herald*) beginning to send in ore, and if the punt was only available, instead of being at the bottom of the river, and the Government would put in a decent road, the returns of ore and the traffic over the road would be considerable. A few bags of ore have been sent out and reached Launceston, and the smelting return is 73 per cent. metallic tin. This is a very high average. Even on a tribute it is very rarely required from the tributaries that their ore shall average more than 70 per cent., and the Stanley tin must, therefore, be exceptionally pure. The worst of it is that the tin, though ready to be packed in, cannot be brought to Zeehan until better facilities are given for its transport.

A RUSSIAN inventor claims the discovery of a new telephone system, whereby spoken messages can be transmitted over very great distances wherever an ordinary telegraph line is laid, and without in any way interfering with the telegraphic despatches. Spoken messages can be transmitted by the same wire in many directions at the same time. As M. Gwozdef considers his invention invaluable in case of war or sudden mobilisation, he has resigned all claims to it in favour of the Russian Government.

It is officially announced that the Executive Council, having determined that the United Kingdom Section of the Imperial Institute will be, for the present, best utilised, and the resources of the home country most effectively displayed by a series of exhibitions illustrative of the progress and present condition of the leading industries and manufactures of Great Britain and Ireland, arrangements are made for holding an exhibition from the middle of May to the middle of September of the artistic and decorative pottery, china and glass manufactures in the United Kingdom.

THERE have been some peculiar tenders for the survey of the Krugersdorp-Klerksdorp line. One was at the rate of £6 10s. per mile, while another worked out at £71 per mile, the successful tender being at the rate of £18 per mile.

THERE have been heavy rains at the Randt and other parts of the Transvaal, and the mines at the west of the Randt especially have had to work hard to check the inflow of water. At the Vaal River bridge part of the embankment was washed away, and the river rose to within about a foot of the rails.

THE Johannesburg *Standard and Diggers' News* states that the ore in the second level of No. 2 shaft in the New Rietfontein Mine, will take about three months to work out, and that no work is being done elsewhere except in No. 7 shaft, where the only gold found is on the foot and hanging walls, the bulk of the reef being dumped as waste. Cross cuts to find the reef are being made in every direction, and the state of the mine is such, according to the *Standard and Diggers' News*, that there is a possibility of the mill being closed down unless there are any better discoveries.

THE Government of Australia has purchased the great nugget of tin found on the Gormanston Tin Mine recently, at the sum of £50. The nugget is the largest of the kind ever discovered, weighing 2 tons 14 cwt., and it is intended to make it a permanent advertisement of the colony's mineral wealth. It will be one of the exhibits at the forthcoming International Exhibition. Various calculations have been made as to its value, and it is estimated that it will assay about 20 per cent. of metallic tin. The nugget is to be delivered in good condition at Leslie Junction.

It is stated that Medina and Vega, two experienced miners who are working the Lady Belle Mine, near Kernville, California, on tribute, have opened a fine body of pay quartz. In the past this mine has yielded probably over a million dollars, and it is known to be very rich below the water level. But nothing can be done at that depth until the Big Blue system of mines starts to work. When that is done, a splendid output of quartz rich in gold may surely be expected.

At Johannesburg it is believed that the fact that February was a short month, and that the heavy rains interfered somewhat with work, will lead to a slight falling-off in the output, as compared with January. During the current month, however, it is confidently believed that the coveted total of 150,000 ounces will be reached.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET—LONDON, MARCH 9.

Copper.

The heavy prompts becoming one this month, and the failure of an operator, though not very important in itself, have sent prices down this week, and the feeling all through has been very dull, although the price closes rather better again. From £40 7s. 6d. cash G.M.B.'s fell to £40 5s. on Monday, and to £40 (the lowest for years past) on Tuesday. The improvement in silver was attended by an increase in speculative demand for G.M.B.'s, and Wednesday witnessed a rapid recovery, viz., to £40 13s. 9d. A relapse of 2s. 6d. was followed by £40 13s. 9d. again, and to-day, after business at £40 11s. 3d., £40 10s., £40 8s. 9d., £40 10s., and £40 12s. 6d. s.c., and £41 and £41 1s. 3d. three months, we close steady at £40 11s. 3d. to £40 12s. 6d. s.c., and £41 1s. 3d., to £41 2s. 6d. three months. In furnace material the only sale advised is that of 100 Sotiel precipitate at 8s. 3d. per unit.

Tin

opened 5s. lower at £64 5s. cash straits, and declined, before the close on Monday, to £63 15s. On Tuesday £64 and £63 17s. 6d. were recorded for spot, and three months changed hands at £1 higher. On Wednesday silver rose 5s. 8d., and tin naturally received an impulse from this circumstance, its movement having been for some time past largely determined by those of silver. On the day named tin was done at £64 17s. 6d. to £65 5s. s.c. Straits, and £65 10s. to £66 for forward, and Thursday brought a further slight improvement, although in this case silver was lower. To-day spot was done at £65 10s. to £66 2s. 6d., and three months at £66 7s. 6d. to £67. The market closes firm at £66 to £66 2s. 6d. s.c., and £66 17s. 6d. to £67 three months. In the Dutch market Billiton tin opened at £1 39 s.c. and 39½, declined to 38½ and 39½, respectively, then recovered to 39½ and 40, and closes at 40½ s.c. and 40½ three months.

Pig Iron.

Scotch shipments last week were 7077 tons, or 1574 tons over those of the corresponding week of last year. The Glasgow market opened steady with a small business at 43s. to 42s. 11½d. s.c. Scotch. On Wednesday 43s. 1½d. was done, but the following day brought a relapse to 42s. 10½d. The market closes to-night at 43s., with hematite at 44s. 10½d., and Cleveland at 36s. 1d.

Lead

is quiet at £9 5s. soft foreign, and £9 7s. 6d. English.

Spelter

is a steady market without any feature of interest at present. The closing values are £15 12s. 6d. to £15 15s. ordinaries, and £15 15s. to £15 17s. 6d. specials.

Antimony

continues dull at £36.

Quicksilver

has declined to £5 12s. 6d. firsts and £5 12s. seconds.

The following are to-night's (March 9) prices of metals:—

	Copper.	£ s. d.	£ s. d.
Tough cake and ingot	...	42 10 0	43 5 0
Best selected	...	43 5 0	44 5 0
Sheets and sheathing	...	51 0 0	52 0 0
Flat bottoms	...	51 0 0	55 0 0
Chill bars	...	40 11 3	41 2 3
Good merchantable, spot, & 3 months respectively	...	40 11 3	41 2 3
Copper tubes, seamless	0 0 7½
BRASS: Wire	0 0 5½
“ Tubes (solid drawn)	0 0 5½
“ Sheets	0 0 5½
PHOSPHOR BRONZE: Alloys II.	88 0 0
“ “ III. or V.	93 0 0
“ “ VII.	90 0 0
“ “ VIII.	85 0 0
DURO METAL	...	80 0 0	85 0 0
BULL'S METAL	...	80 0 0	70 0 0
FERROBRONZE (Vivian's).
Ingots	...	0 0 5½	...
Ordinary sheets, plates, bolts and bars	...	0 0 8½	...
Screw bolts and nuts	...	0 0 8½	...
Pump rods, plain	...	0 0 7½	...
“ finished	...	0 0 10½	...
DELTA METAL: No. 4 (per ton)	75 10 0
“ Sheets and plates (per lb.)	...	0 0 10½	...
“ Bars, round, square, flat (per lb.)	...	0 0 9½	...
“ hexagon (per lb.)	...	0 0 9	...

	Tin.	£ s. d.	£ s. d.
English, ingots, f.o.b.	...	70 15 0	71 9 0
“ bars	...	71 15 0	72 5 0
“ refined	...	72 15 0	73 5 0
Straits, spot and 3 months respectively	...	66 2 6	67 0 0
Australian spot, and three months respectively	...	66 10 0	67 7 6
Banco (in Holland)	...	73 0 0	73 2 6
TIN PLATES: Charcoal, best quality	...	per box 0 16 0	0 18 6
“ ordinary	...	0 14 0	0 15 8
“ Coke, best quality	...	0 11 3	0 11 9
“ ordinary	...	0 11 3	0 10 0

These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

	Iron.	£ s. d.	£ s. d.
Fig. G.M.B. f.o.b. Clyde, spot	2 3 0
“ Scotch pig, No. 1 Gartsherrie	2 11 0
“ “ Coltness	2 17 0
“ “ Clyde	2 9 6
“ “ Govan	2 4 6
Bars, Welsh, f.o.b. Wales	5 5 0
Plates	5 5 0
Bars, Staffordshire, at works	6 15 0
Sheets	6 12 6
Plates	6 12 6
Hoops	5 17 6
Ship plates, Middlesborough	4 17 6
STEEL: English spring	...	nominal	9 0 0
“ cast	...	quality	16 0 0
“ Rails at works, 50 lbs. per yard and upwards	...	3 15 0	3 18 9
“ Light, at works, according to section (extra)	...	0 10 0	2 0 0
Spanish or soft foreign	9 5 6
English pig, common	9 15 6
“ L.B.	10 7 6
“ sheet and bar	10 17 6
“ red	12 2 6
“ white	16 10 0
“ patent shot	13 15 0

	Spelter.	£ s. d.	£ s. d.
Silesian ordinary brands	...	15 12 6	15 15 0
“ special brands	...	15 15 0	15 17 6
English Swanses	...	15 5 0	15 7 6
Sheet Zinc	...	12 8 0	12 10 0
Antimony	38 0 0
Flasks, 75 lbs. warrants	...	5 12 6	5 12 0
Ore, c.i.f., U.K. ports	...	per unit.	...
1st quality, 50 per cent. and upwards	...	0 0 10	0 1 1
2nd “ 47 per cent. to 50 per cent.	...	0 0 8	0 9 10
3rd “ 40 “ 47 per cent.	...	0 0 8	0 9 10
Aluminium.
98-99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)	...	0 1 7½	0 1 11
do do do (5 cwt. and up)	...	0 1 7½	0 1 11
Nickel.
98-99 per cent. guaranteed	...	0 1 7½	0 1 9½

DEATH OF MR. ALFRED RICHARDS, OF PORTREATH.—We regret to announce the death of one of the best known men in mining circles in the Redruth district. Mr. Alfred Richards, of Portreath, for so many years connected with Cornish mining, at one time the clerk of East Pool Mine, and for a generation or more a prominent agent with the Messrs. Williams, of Scorrier, at Portreath and elsewhere. Mr. Richards was possessed of more than usual intelligence in most matters. A man of considerable taste and refinement, and well acquainted with the history of the locality in which he lived and died.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bz*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron; *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Ruby; *S*, Silver; *S-L*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "called up" column of British Mines, signifies that the mine is conducted on lease to the Limited Liability Law of the South African Republic. and 1, following the names of African mines, signifies that they are

* The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

rown Reef (New)	15½	11½	9½	1	0	5	May '92	1	0	35,000	Witwatersd.	66, Gresham-street.
rown Reef (New)	9½	8½	9½	1	0	25	Oct. '93	1	0	123,000	Witwatersd.	23, Austin-firm.
de Beers Channel, D.	15½	15½	15½	6	0	12	8 June '92	6	0	769,791	Transvaal	62, Lombard-street.
de Beers, ¼ 1st Deb. ..	105	116	108	—	—	—	—	—	—	—	—	—
de Beers, ½ 2nd Deb. ..	104½	105½	116½	—	—	—	—	—	—	—	—	—
Urban Hoedspr. G	5½	5½	5½	1	0	2/-	Mar '93	1	0	125,000	Witwatersd.	28, Leadenhall-bldg.
Swain Dray	4/-	5/-	—	1	0	—	—	1	0	0	—	—
Swain	—	—	—	1	0	10	Jan. '89	1	0	0	De Kaap	23, College-Hill.
Swartkops	7½	7½	7½	1	0	6	July '91	1	0	0	Witwatersd.	28, Old Jewry, E.C.
Swartkops Reef	7½	1/-	1/-	1	0	—	—	1	0	0	Witwatersd.	28, H. J. van Vliet.
Swartkops Reef	—	—	—	—	—	—	—	1	0	420,000	De Kaap	45-6, Leadenhall-st.
Swartkops Reef	2½	2½	2½	1	0	—	—	1	0	0	Transvaal	30, Rt. Swinburn-lane.
Swartkops Reef	2½	2½	2½	1	0	10	Mar. '93	1	0	0	Witwatersd.	29 30, Hol. Vliet.
Swartkops Reef	24/8	26/8	25/8	1	0	—	—	1	0	0	Witwatersd.	Wardoff Court, E.C.
Swartkops Reef	—	—	—	1	0	—	—	1	0	0	Witwatersd.	Johannesburg.
Swartkops Reef	31/8	32/-	31/-	1	0	—	—	1	0	0	Witwatersd.	2, Drapers-gate.
Swartkops Reef	3/8	4/8	—	1	0	15	Dec. '93	0	10	0	Witwatersd.	45, Queen Victoria-st.
Swartkops Reef	8/-	9/-	9/-	1	0	—	—	1	0	0	Witwatersd.	14, Throgmorton-st.
Swartkops Reef	7/9	1/3	1/3	0	6	2½	Mar. '92	0	4	0	Witwatersd.	4, Bishopsgate-st. W.
Swartkops Reef	—	—	—	1	0	—	—	1	0	0	Witwatersd.	Wardoff Court.
Swartkops Reef	6½	3½	6½	10	—	—	—	10	0	0	Transvaal	62, Lombard-street.
Swartkops Reef	2½	2½	2½	1	0	—	—	1	0	0	De Kaap	Wardoff Court.
Swartkops Reef	2½	2½	2½	1	0	—	—	1	0	0	Witwatersd.	1, Crosby Square.
Swartkops Reef	—	—	—	1	0	—	—	—	—	—	De Kaap	1, Louthbury, S.W.

"THE MINING JOURNAL" SHARE LIST (African Mines continued).

Name.	Closing Price, Mar. 9, 1894.	Closing Price, Mar. 2, 1894.	Par.	Latest Dividend.	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.	Name.	Closing Price, Mar. 9, 1894.	Closing Price, Mar. 2, 1894.	Par.	Latest Dividend.	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
Joe's Luck.....G	1/8 2/8	2/8	1 0	—	1 0 0	57,404	De Kaap	11, Queen Vic.-st.	Piggs Peak	—/6	—/6	1 0	—	1 0 0	230,326	Swaziland	6, Queen-street-place
Jubilee	5 1/4 5 1/4	4	1 0	30% Oct. '93	1 0 0	30,000	Witwatersdrd.	8, Old Jewry.	Potchefstroom	3/4 4/4	4/4	1 0	—	1 0 0	161,000	19, Bury-st., E.O.	33, Cornhill, E.O.
Jumpers	3 1/4	4	1 0	10% Jan. '93	1 0 0	100,000	Witwatersdrd.	29, Holborn Viaduct.	Princess Estate	3/4 1	1 1/4	1 0	—	1 0 0	72,046	Witwatersdrd.	33, Cornhill, E.O.
Kleinfontein	5/8 6/8	6/8	1 0	—	1 0 0	150,000	Witwatersdrd.	8, Old Jewry.	Randfontein	12/6 13/6	12/6	1 0	—	1 0 0	1,966,500	Witwatersdrd.	59, Holborn Viaduct.
Kleinfontein	1/8 2/8	—	1 0	—	1 0 0	150,007	Transvaal	110, Cannon-street.	Read's Drift	9/4 10/4	10/4	1 0	—	1 0 0	543,750	Transvaal	55, Holborn Viaduct.
Knight	14/4 15/4	17/8	1 0	—	1 0 0	250,000	Witwatersdrd.	19, Bury-street, E.O.	Robinson	5 1/4 5 1/4	5 1/4	1 0	4% June '93	1 0 0	100,000	Witwatersdrd.	Warrford-court.
Langlaagte Est.	4 1/4 4 1/4	3 1/4	3 0	20% July '92	1 0 0	467,000	Witwatersdrd.	59, Holborn Viaduct.	Rodepoort Un.	—/4 1/4	—/4 1/4	1 0	—	1 0 0	485,000	Grigoland W.	30-1, St. Swithin's-ls
Lisbon-Berlyn	2/8 3/8	3/8	2 6	—	1 0 0	883,233	Witwatersdrd.	110, Cannon-street.	Saunders	2 1/2 2 1/2	2 1/2	1 0	—/6 Aug. '93	1 0 0	93,000	Witwatersdrd.	1, Crosby-square.
Lippsdrift Vle. Est.	10/3 10/3	10/3	1 0	6% Mar. '90	1 0 0	344,003	Witwatersdrd.	8, Old Jewry.	Sheba	2 1/2 2 1/2	2 1/2	1 0	—	1 0 0	614,450	Lydenburg	18, St. Helen's-place.
Main Reef	5/3 5/3	5/3	1 0	—	1 0 0	300,000	Witwatersdrd.	Warford-court.	Silati	3/6 4/4	3/3	1 0	—	1 0 0	85,000	Zoutpansberg.	4, Sun Court, E.O.
Manica Opif.	—	—	1 0	—	1 0 0	96,000	Mozambique.	2, Pinner's Court.	Simmer & Jack	5 5/4	4 1/4	1 0	10% Nov. '93	1 0 0	85,000	Witwatersdrd.	33, Cornhill.
May Consol.	9/8 10/3	10/3	1 0	—	1 0 0	430,000	Witwatersdrd.	4, Lothbury.	S.A. Gold Trust	17/4 18/4	18/4	1 0	10% April '93	1 0 0	220,000	South Africa.	8, Old Jewry.
May Deep Level	8/8 9/3	9/6	1 0	—	1 0 0	146,000	Witwatersdrd.	31, Cornhill, E.O.	Spitzkop	1/6 2/4	2/4	1 0	—	1 0 0	144,531	Lydenburg	15, Bishopsgt-st. Wt.
Metropolitan	1 1/4 1 1/4	1 1/4	1 0	—	1 0 0	75,000	Witwatersdrd.	1, Crosby-square.	Stanhope	1 1/4 1 1/4	22/6	1 0	50% May '93	1 0 0	220,000	Zoutpansberg.	3, Budge-row, E.O.
Meyer & Charlton	5 1/4 5 1/4	5 1/4	1 0	35% July '93	1 0 0	71,687	Witwatersdrd.	Warford-court.	Sutherland R.	4/4 4/6	4/6	1 0	—	1 0 0	98,000	Witwatersdrd.	8, Old Jewry.
Mitell	7/8	7/8	1 0	—	1 0 0	45,000	Witwatersdrd.	Kimberley.	Teutonia	11/8 12/8	12/8	1 0	—/8 Oct. '93	1 0 0	439,965	Witwatersdrd.	Broad-st. House, E.O.
Modderfontein	6/8 7/8	7/8	1 0	—/4 May '90	1 0 0	240,000	Witwatersdrd.	Warford-court.	Trans. Coal Trust	11/8 12/8	12/8	1 0	—	1 0 0	285,700	Transvaal	76, Old Broad-st. E.O.
Moodies G. & E.	8/4 9/4	9/4	1 0	—	1 0 0	240,000	De Kaap	8, Old Jewry.	Trans. Est. & Dev.	28/4 29/4	29/4	1 0	1/- Dec. '93	1 0 0	250,000	Transvaal	Suffolk House, E.O.
Moodies (15/- p.G)	2/8 3/8	5/8	1 0	—	1 0 0	120,000	De Kaap	8, Old Jewry.	Trans. Gold	2/8 3/6	4/4	1 0	—	1 0 0	250,000	Transvaal	33, Cornhill.
Namaqua	15/4 20/4	20/4	2 0	2/8 July '91	2 0 0	194,351	Namaqualand.	34, Leadenhall-bldg.	Trans. Land (15/-)	2/8 3/6	4/4	1 0	—	1 0 0	45,000	Transvaal	110, Cannon-street
New Chimes	1 1/4 1 1/4	1 1/4	1 0	—	1 0 0	70,000	Witwatersdrd.	8, Old Jewry, E.O.	Un. Ivy Reef	20/4 22/6	22/6	1 0	—	1 0 0	100,000	Witwatersdrd.	23, St. Swithin's-ls.
New Cross	1 1/4 1 1/4	1 1/4	1 0	5% Aug. '92	1 0 0	195,000	Langlaagte	1, Bishopsgt-st. Wt.	Un. Langlaagte	12/6 15/4	15/4	1 0	—	1 0 0	59,810	Witwatersdrd.	1, Crosby-square.
New Jagers	1 1/4 1 1/4	1 1/4	1 0	—	1 0 0	100,000	Transvaal	5, Cophall-buildings.	Van Ryn	7/8 10/4	10/4	1 0	—	1 0 0	100,000	De Kaap	Portland House, E.O.
New Primrose	4 1/4 4 1/4	4 1/4	1 0	4/- July '93	1 0 0	230,000	Witwatersdrd.	2, Draper's-gardens.	Victory Hill	4 1/4 4 1/4	4 1/4	1 0	—	1 0 0	132,000	Witwatersdrd.	8, Old Jewry.
Nigel	2 1/4 2 1/4	2 1/4	1 0	10% Dec. '93	1 0 0	160,000	Witwatersdrd.	1, Crosby-square.	Village Main Reef	—	—	1 0	—	1 0 0	48,335	Transvaal	26, Budge-row, E.O.
Nootgedacht E. G.	2 1/4 2 1/4	2 1/4	1 0	25/- Nov. '89	1 0 0	150,000	Transvaal	4, Sun Court, E.O.	Virginia	—	—	1 0	—	1 0 0	150,000	Witwatersdrd.	34, Leadenhall-bldg.
Oceans	2 1/4 2 1/4	2 1/4	1 0	—	1 0 0	111,857	E. Coast Africa	31, Lombard-street.	Vogelstruis	4 1/4 4 1/4	4 1/4	1 0	10% Nov. '91	1 0 0	55,000	Witwatersdrd.	19, Bury-street.
Ophir Consol.	3 1/4 4 1/4	4 1/4	1 0	—	1 0 0	284,000	Orange F. State	10, Moorgate-street.	Wemmer	4 1/4 4 1/4	4 1/4	1 0	—	1 0 0	250,000	Witwatersdrd.	19, Bury-street.
Orange F. S. E.	3 1/4 4 1/4	4 1/4	1 0	—	1 0 0	284,000	De Kaap	Jamaica-gs. Cornhill	Witwatersdrd.	2 1/4 2 1/4	2 1/4	1 0	—	1 0 0	120,000	Witwatersdrd.	19, Bury-street.
Oriental	1/6 2/4	2/4	1 0	—	1 0 0	448,450	Kimberley	11, Cannon-st., E.O.	Worcester	1 1/4 1 1/4	1 1/4	1 0	—	1 0 0	90,727	Witwatersdrd.	8, Old Jewry.
Otto's Kopje	1/4 1/6	1/6	1 0	—	1 0 0	500,000	Transvaal	22, Cannon-st., E.O.	Zwartland Land	—	—	1 0	—	1 0 0	150,000	Transvaal	19, Birch-lane, E.O.
Paarl Central	1 1/4 1	1	1 0	—	1 0 0	138,750	Transvaal	22, Cannon-st., E.O.									

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

LADDIN'S LAMP.—The following cablegram has been received from the mines:—"185 tons of ore have been crushed during last fortnight, yielding 830 ounces of gold. We are now stopping on a chute of rich ore on the 400 feet level. The No. 2 winze from the 300 feet level has now reached the 400 feet level, and we will at once commence driving in both directions. The formation is favourable for development of ore bodies. The stopes are looking splendid."

BARRETT GOLD.—February gold yield, 400 ounces.

BALAGHAT MYSORE.—The directors have received a telegram from Captain Jos. Pryor, giving the return of gold for the month of February (short month) as follows:—"330 tons of quartz crushed, produced 364 ounces of gold. Struck quartz 800 north of Ogle's shaft; width of lode 1 foot, assaying 4 ounces 10 dwts." The company have also received from Captain Jos. Pryor, an extract from letter, dated February 14:—"Tennant's shaft: The usual progress is being made here, and the quartz maintains its promising appearance, and is from 2 to 3 feet wide. The last assay was 14 dwts. of gold per ton."

BLUE SPUR AND GABRIEL GULLY.—A cablegram received from the manager of the Blue Spur and Gabriel Gully Consolidated Gold Company (Limited) reports that the amount of gold won for the period from 2nd January to 28th February, 1894, was 519 ounces.

CAYLLOMA.—February production: Shipping ores, 20,650 ounces fine; bullion, 1500 ounces fine. Output reduced owing to temporary stoppage of pumps. Mill shut down for cleaning and repairs; would restart 7th inst. Toro lode improving with depth.

CHAMPION REEF.—The directors have received a telegram from the mine, dated 5th inst., giving last month's return of gold as follows:—"Crushed 2070 tons; obtained 3044 ounces of gold; 78 ounces were also obtained from tailings. The tailings machinery was started during the past month, but did not run continuously owing to preliminary difficulties."

CRAVEN'S CALEDONIA.—The following cablegram has been received, giving result of crushing for past fortnight, dated Charters Towers:—"170 tons, yielding 380 ounces gold: partial clean up."

CROWN REEF.—A cablegram has been received from the head office at Johannesburg, stating the output for February, as follows:—"Yield in smelted gold from stamps, 3557 ounces; yield in smelted gold from cyanide works, 2693 ounces; total, 6250 ounces."

DE LAMAR.—The following is the cabled return for the month of February: Crushed during the month 3091 tons. Bullion produced in the mill, \$70,041; estimated value of ore shipped to smelters, \$12,000; miscellaneous revenue, \$295; total revenue, \$82,336; total expenses, \$36,197; profit for the month (or at \$4-0 to £ sterling £9410), \$46,139.

DON PEDRO.—The following telegram has been received from the mine:—"Produce for February, 1800 ounces = 207 ounces from 297 tons." Office Note.—Only 20 working days in February, owing to holidays.

DURBAN-ROODEPOORT.—The following results for February have been received by cable:—"Quartz milled 5425 tons, 70 stamps, 26 days, 3393 ounces; tailings treated 7980 tons, 26 days, 2051 ounces. Total, 5354 ounces."

EL CALLAO.—Messrs. Baring Brothers and Co. (Limited) have received the following telegram from El Callao Mining Company:—"1501-1525 ounces of bar gold produced by El Callao Mine, and 3076-3100 ounces by the Columbia Mine. 16 francs dividend declared by the Columbia Mining Company."

ELKHORN.—Bullion produced in the mill for the week ending March 3, 10,500 ounces.

FORBES REEF.—A telegram has been received from the mines, giving the results for the month of February as follows:—"Crushed 1800 tons quartz and soil (mostly soil); obtained 98 ounces of gold."

GELDENHUIS ESTATE AND GOLD.—A cablegram has been received from the head office at Johannesburg, stating the following results for last month (February):—"Crushed, 9182 tons; obtained, 3555 ounces of gold."

GUADALCAZAR QUICKSILVER.—The quantity of quicksilver drawn off for the week ending March 1st, as cabled from the mines, amounts to 3400 lbs. = 45½ flasks.

HARQUAHALA.—Mill started March 1. Everything is going right.

HENRY NOURSE.—Crushing for February, 26 days only, 1700 tons, produced 1700 ounces; cyanide works, 1800 tons, produced 730 ounces; total 2430 ounces.

JUMPERS.—A cablegram has been received from the head office at Johannesburg, stating the following results for last month (February):—"Crushed 8923 tons; obtained, 4241 ounces of gold; and concentrates equal to 768 ounces; total, 5009 ounces."

JOHANNESBURG PIONEER.—Output for the month of February, 860 ounces of gold.

LANGLAAGTE ROYAL GOLD.—"Result for February: 1222 ounces from 4227 tons; 40 stamps, running 27 days."

LISBON-BERLYN.—The manager cables on the 5th inst. as follows:—"Development of Theta Reef is progressing satisfactorily; prospects are most encouraging; eight samples of the outcrop of the lode have yielded 39 dwts. per ton of 2000lbs."

MAY CONSOLIDATED.—The following cable message, dated Johannesburg, 3rd inst., has been received at the office:—"The yield of gold during the past month (February) was 2050 ounces from 5200 tons crushed. Mill running 25 days."

MESQUITAL DEL ORO.—The following cablegram, giving the result of the February mill run, has been received from the mine:—"50 stamps ran 439 hours (18 days 7 hours); quantity of ore crushed 2015 tons; bullion produced at clean up 716 ounces; value about £2540. Have also remitted copper bar, value about £47. Stoppage of eight days, occasioned by engine breakdown."

MEYER AND CHARLTON.—Crushed for February 3348 tons, obtained 2024 ounces of gold; 808 ounces also recovered from tailings; total 2832 ounces; estimated profit £4100."

METROPOLITAN GOLD.—During the month of January the mill ran 25½ days, with 20 stamps, crushing 1615 tons of ore, which yielded 513 ounces 16 dwts. retorted gold. Scarcity of Kaffir labour alone prevented the full number of stamps (40) being run, but it is hoped that a sufficient supply of boys to enable the full number to be run will very shortly be obtained.

MONTANA.—The secretary begs to state that, by cablegram from the mine, the directors are informed that the total output for February was: Gold 2070 ounces, and silver 14,310 ounces, and that the estimated realisable value of the same was \$49,300. The tonnage of ore milled during the month was 5150 tons, 100 stamps having been in operation. The expenditure was as follows:—"Working expenses on revenue account, \$31,900; outlay on developments, \$11,800; extraneous expenses, including insurance, \$1750; on permanent improvements account, \$100 = \$13,650; total \$45,550."

MORGAN GOLD AND SILVER (Wales).—Crushed 177 tons of stone, which yielded 106 ounces of gold, or an average of 12 dwts. to the ton.

MOUNT LEYSHON.—The Mount Leyshon (Limited) have received the following cablegram, dated 3rd March, from their manager at Charters Towers, giving the fortnightly crushing:—"1300 tons crushed, 256 ounces gold; 35 stamps ran 12 days; profit, £100."

MYSEOR GOLD.—The directors have received a telegram from Mr. Hancock, giving the return of gold for the month of February (short month) as follows:—"4549 tons of quartz crushed, produced 4026 ounces, also 683 ounces were obtained from tailings, making a total production of 4709 ounces of gold."

NEW AURORA WEST.—26 days; 25 stamps; 785 ounces from 2500 tons; 126 ounces from concentrates. Cyanide works have started.

NEW CHIMES.—"Result of last month's crushing yielded 2135 ounces of gold"

NEW CLEWER ESTATE.—Results for February: From mill working 24 days, crushed 1618 tons, yielding 579 ounces of gold. From cyanide works, treated 1830 tons, yielding 1114 ounces of gold. Total yield, 1693 ounces of gold; value, £4500; profit, £1500.

NEW HERIOT.—Last month's crushing yielded 3460 ounces. **NERBUDDA COAL AND IRON.**—The coal sales for the month of January last amount to 2478 tons.

NEW RIETfontein.—"Deny rumours of closing mill; prospects encouraging."

NIGEL.—Last month's crushing yielded: Battery, 2440 ounces; cyanide, 1920 ounces; total, 436 ounces.

NUNDYDROOG.—The directors have received a telegram from Mr. F. W. Grey, giving the return of gold for the month of February (short month) as follows:—"2300 tons of quartz crushed, produced 1592 ounces, also 136 ounces were obtained from tailings, making together a total production of 1728 ounces of gold"

NEW UNITED MAIN REEF.—Result for February 1261 ounces; 60 stamps running 28 days.

ORION.—Crushing for February: Plates, 900 ounces; cyanide process 1550 ounces.

PESTARENA UNITED.—Gold returns for February, 1894, 309 ounces 7 dwts. 6 grains from 316 tons of ore, equal to 19 dwts. 13 grains per ton.

PHENIX P.C.—Messrs. Barkitt, Munro, and Co., of 16, Cornhill, have received the following cablegram from Gympie, dated the 5th inst.:—"Phoenix P.C. Crushed 668 tons, 1802 ounces. Dividend 2s. 3d. per share."

QUEEN'S BIRTHDAY.—The directors have received the following cable from Mr. W. T. Hansford, the company's local secretary at Danolly, dated March 9:—"Belgium and Perseverance Mine: Expect to strike the vein at 200 feet level within 16 days.—Queen's Birthday Mine, 500 Feet Level: Trial crushing gives 5 dwts. to the ton, which shows a profit; the appearance

of the ore body in this level is improving.—Queen's Birthday mine, Centre shaft: The repairs to machinery is nearly finished."

N.B.—The Belgium reef when worked at 120 feet from surface gave 2 ounces gold to the ton.

ROBINSON.—Production for February, by cable:—"Mill: Stamps running, 60; ore crushed, 7912 tons; gold smelted, 10,083.—Tailings—cyanide process: Gold recovered, 1437 ounces.—Concentrates—chlorination process: Gold recovered, 1042; from concentrates bought, 2321 ounces; total gold recovered from own ore, 12,562; total production, 15,383 ounces."

ROODEPOORT UNITED.—Crushing for February, 3305 tons, produced 1450 ounces; cyanide works produced 1095 ounces; total, 2545 ounces; estimated profit for month, £3015.

STANHOPE.—Last month's crushing yielded 730 ounces from battery, 424 ounces from cyanide; 1750 tons crushed; £2500 approximate expenses; £1500 approximate profits.

SALISBURY GOLD.—Last month's crushing yielded 1300 ounces.

TOLIMA.—The directors have received the following cablegram from their superintendent respecting the estimated February returns:—"Profit, £4000."

TRANSVAAL GOLD EXPLORATION AND LAND.—The directors have received the following cablegram:—"Ore mined, 750 tons; ore treated, 650 tons, yielding 1125 ounces; tailings treated, 475 tons, yielding 775 ounces; total for February, 1900 ounces; working costs, £3080. These include all expenditure on account of mining, milling, and cyanide treatment."

UNITED IVY REEF.—The crushing during last month yielded 256 ounces; the tailings produced 218 ounces, making a total of 464 ounces for the month.

VAN RYN ESTATE.—"Result of 24 days working for February, 30 stamps, 838 ounces per 2036 tons."

VICTORIA GOLD MINING ASSOCIATION.—The following cablegram, dated 6th March, has been received at the London office:—"515 tons crushed, yielded 817 ounces gold for three weeks."

WEMMER.—The directors are in receipt of cablegram from Johannesburg advising work done during February:—"3913 tons crushed, yielding 2612 ounces of gold. 40 stamps working 27 days."

WORCESTER EXPLORATION GOLD.—Result of last month's crushing yielded 2246 ounces of gold.

THE DOVER COAL FIELD.—The operations in connection with the sinking of the coal mining shaft at Shakespeare's Cliff, Dover, are assuming a more practical form, and are beginning to be regarded more seriously by the public. The latest discoveries revealed by the boring, which is still being continued, shows almost beyond doubt now that a workable coal field exists here. According to a pamphlet recently issued by the engineer, Mr. Francis Brady, the principal seam of two further seams pierced at a depth of a little over 2000 feet from the surface was 4 feet thick, so that the total thickness of workable coal now ascertained by boring amounts to 21 feet, and there are indications of further seams below. The quality of the coal brought to surface is good, and it is estimated, so far as present experiments have gone, that the coal field contains at least 200,000,000 tons. The area leased, or in course of settlement for working coal, is about 7000 acres. The shaft which is being sunk is 17 feet in diameter, and is being cased in with iron sheeting. Although the works above ground are becoming extensive, the operations are conducted with considerable secrecy, but it is stated that the depth attained in the shaft is now about 200 feet. It is proposed shortly to introduce machinery to accelerate the sinking of the trial shaft, and all things being favourable there is no reason why in two or three years' time mining operations may not be actually commenced.

PROSPECTING AT WADNAMINGA.—The following is the report of work done by the Government prospectors at Wadnaminga for the two weeks ended January 20:—"J. Roedoe sunk four holes, total 28 feet; drove 22 feet; result

No application for less than Five Shares will be entertained.
First Subsidiary Company of PARDY'S MOZAMBIQUE SYNDICATE, LIMITED.

THE GUY FAWKES REEF, Limited.

To be Incorporated under the Companies' Act, 1862 to 1890.

Capital £50,000

IN 100,000 SHARES OF 10s. EACH,

24,000 of which are now offered for Subscription, payable 2s. 6d. on Application; 2s. 6d. on Allotment; 1s. 1st July, 1894; 1s. 1st September, 1894; 1s. 1st November, 1894; 1s. 1st January, 1895; and 1s. 1st March, 1895.
The balance, 76,000 shares, is to be dealt with as follows:—30,000 to be issued to Pardy's Mozambique Syndicate, Limited, in part payment of the purchase price; 10,000 to be held in reserve for the Mozambique Company against commutation of Royalties, and the remaining 6000 to be held as unissued Capital.

DIRECTORS.

Lieutenant-General E. Harding Steward, C.M.G. (formerly in command of the troops in Natal), T. H. Watson, Major Travers, J. O. Law, and L. C. Alexander, LL.D., being the Directors of Pardy's Mozambique Syndicate, Limited.

MANAGER IN AFRICA.

Mr. J. R. Pardy, F.R.G.S.

BANKERS.

London and South Western Bank, Limited, Fenchurch-street, E.C., and Branches.

OFFICES.—Broad-street-avenue, London, E.C.

SECRETARY.

The Secretary of Pardy's Mozambique Syndicate will be appointed Secretary of this Company.

WORKING CAPITAL.

£10,000 has been fixed as the sum desirable for machinery, development and contingent expenses.

DIRECTORS' REMUNERATION.

£50 per annum for each director.

MANAGEMENT REMUNERATION.

15 per cent. of the profit of this Company to be paid to Pardy's Mozambique Syndicate, Limited.

PURCHASE MONEY.

The before-mentioned 60,000 fully paid Shares and £2000 cash.

PROPERTY.

13 claims, each 100 metres by 100 metres, situated on Guy Fawkes Creek, near Fort Massi Kessi, in Manica.

ASSAYS FOR GOLD.

of average samples taken from the reefs.

Mr. CLAUDET, Assayer to the Bank of England.

No. 1 Gold 0 ozs. 19 dwts. 0 grs. per ton of 2244 lbs.

No. 2 Gold 0 ozs. 18 dwts. 12 grs. per ton of 2240 lbs.

No. 3 Gold 0 ozs. 9 dwts. 0 grs. per ton of 2240 lbs.

JOHNSON, MATTHEY and Co., LIMITED, Assayers and Melters to the Bank of England.

Produce of Gold 1 oz. 7 dwts. 12 grains. per ton of 2240 lbs.

Mr. PARDY'S ESTIMATE.

"I propose to put up a ten-stamp battery. This battery ought to crush 20 tons per diem. We can safely reckon on an average of 1 oz. per ton; this will be 20 ozs. per diem. Reckoning 26 working days to the month, and putting our expenses at £200, we should be getting a net income of something like £1500 per month. I have thought the matter over deeply, and really see no reason why the above results should not be arrived at. £1500 a month=£18,000 a year, being over 35 per cent. on the £50,000 Capital.

BATTERY.

This will be taken out by Mr. Pardy on his return to Massi Kessi, in May. Sufficient development work has already been done on the claims to enable crushing to commence as soon as the battery is erected.

CONTRACT, MEMORANDUM AND ARTICLES.

The contract for purchase is dated 7th March, 1894, and is made between Pardy's Mozambique Syndicate (Limited) of the one part and Thomas Horsfall Watson, as Trustee for this Company, of the other part, and can be seen with the Memorandum and Articles of Association at the Offices of the Company. 8th March, 1894.

This Form must be signed and returned not later than the 19th March, 1894.

THE GUY FAWKES REEF (LIMITED).

To the DIRECTORS.—I remit herewith the sum of £..... being a deposit of 2s. 6d. per Share on the Shares in the above-named Company. I request you to obtain an allotment to me of that number of shares, which I hereby agree to accept and to pay the balance of 7s. 6d. per share in the instalments and on the dates specified in the Particulars, dated 8th March, 1894, and I authorise you as my Agents to register me as the holder of the said Shares.

Name (in full)

Address

Description

Date

* Please sign here Signature

This Form, entire, should be forwarded, accompanied by a remittance, to the Bankers of the Company, London and South Western Bank (Limited), or to the Secretary, at the Offices of the Company, Broad Street Avenue, London, E.C. All Cheques should be drawn in favour of the Company, and be crossed London and South Western Bank (Limited).

REPORTS FROM THE MINES.

We find it necessary to announce that, owing to the vast numbers of mining reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.

BRITISH MINES.

DEVON GREAT CONSOLS.—Wm. Clemo, March 8: Watson's: The lode in the 172 fathom level east is promising, and is producing 1 ton of copper and munda ore per fathom. In the 160 fathom level east the lode is producing saving work of copper and munda ores. In the 148 fathom level east the lode is 4 feet wide, yielding 5 tons of copper and munda ore per fathom. The stope through-out the mines are yielding full quantities of copper and munda ore.

DRAKEWALLS.—J. Hosking and T. Chapman, 8th March: We are again in for the bottom of the shaft, and the engine is keeping the water easily at 4 strokes per minute. The shaftmen have been mostly employed in repairing the whim shaft, a breakage of the skip having caused considerable damage. The skip road was sufficiently repaired to commence drawing from the 175 on Monday. The shaftmen have commenced to fix the new plunger lift at the 175 previous to resuming the sinking of the shaft. The crosscut through the lode at the 160 fathom level east of engine shaft is still passing through very hard capel, but in the last blast we got some good stones of munda. The stope in the back of the 160 east of engine shaft has improved. Otherwise the stopes are without change.

GREAT LAXEY.—W. H. Rowe, March 7: The branch of lode in the 295 and north of Welsh shaft has lately been disturbed and thrown to the hanging side by a slide joint. In order to avoid a sharp bend in the level, the driving is being directed obliquely towards the branch, which is evidently close at hand. The 278 end north of Dumbell's shaft is now 34 fathoms north of the winze referred to in last report, the lode still averaging in value—about £10 per fathom—while the present end is scarcely so much; but we hope to see a much richer lode when the driving is through the present rather hard channel of rock. A new joint and rise and stope in this level is worth £12 per fathom, and an ordinary roof stope £10 per fathom. In the 266 there are four stopes in sole and one in roof of level, worth respectively £20, £14, £15, £14, and £7 per fathom. The sinking of the new winze in this level is resumed this month, in the present bottom of which there is a "hip" of the lode, which, however, we expect is only temporary. The cross cut at 243 fathom level has been further driven eastward 8 feet through disordered veinstuff, and in a what looks like clean country rock. If after cutting into this a few feet nothing more is met with, we consider enough has been done at this point. The average value of the stopes not already mentioned is about £9 per fathom.

GREEN HURTH.—March 3: In Annie's vein at the south fore-head the vein is not so rich as last reported, and is somewhat disordered by a rib of pyrites coming into the end, worth 2 tons per fathom. The stope in the back of the above maintains its value, worth 3 tons per fathom. The south drive from the dump on the above vein has improved on the week, worth for lead 3 tons per fathom. In branch vein above 30 level the south end shows a decided

improvement for ore to-day, worth 2½ tons per fathom. The north end continues poor.—W. Gray.

LEADHILLS.—G. Menzies, March 5: Brown's Vein: Making good progress getting out the accumulated water. The 160 fathom level north of Wilson's shaft is in a vein above 4 feet wide, showing a good mixture of spar, but continues too dried for yielding ore. The winze below the 145 north of Wilson's shaft is in a vein above 4 feet wide, charged with promising spar and ore worth 20 cwt. per fathom. The stope above the 145 north of Jeffrey's shaft is worth 30 cwt. of ore per fathom. The stope above the 130 north of Jeffrey's shaft is worth 25 cwt. of ore per fathom. The 115 fathom level north of Jeffrey's shaft shows an encouraging vein above 4 feet wide, mainly spar mixed with ore worth 15 cwt. per fathom. The rise above the 115 north of Jeffrey's shaft is worth 30 cwt. of ore per fathom. Cleaning out No. 2 stope above the 115 north of Jeffrey's shaft. No. 3 stope is worth 45 cwt. of ore per fathom. The 115 fathom level south of Wilson's shaft is in a vein above 4 feet wide, wholly stone, still too dried for bearing ore. The 100 fathom level north of Jeffrey's shaft is in a vein above 4 feet wide, showing kindly stone and spar, but no ore. The sinking below the 100 north of Jeffrey's shaft is worth 20 cwt. of ore per fathom. The 100 fathom level south of Wilson's shaft is in a very nice looking vein, above 4 feet wide, charged with promising spar but without ore. The winze below the 85 south of Wilson's shaft is in a vein above 4 feet wide, composed of kindly stone and spar, but without ore. Nos. 1 and 2 stopes above the 85 south of Wilson's shaft are worth 60 and 30 cwt. of ore per fathom respectively. No. 2 winze below the 70 south of Wilson's shaft is in a vein above 4 feet wide, charged with kindly spar but no ore. The stope above the 50 south of winze is worth 50 cwt. of ore per fathom. The stope below the 35 south of flat rod shaft is worth 80 cwt. of ore per fathom. The stope above the 35 south of ditto is worth 25 cwt. of ore per fathom. Sarrowcole vein: Gripp's adit south of George's Ronst vein is in a vein 4 feet wide, nicely mixed with spar but without ore.

MORGAN GOLD AND SILVER (Wales).—Mr. A. W. Castle reports: During the month of February exploratory work has been continued above and below No. 2 level on the Chieflaw lode. We have traced the old shoot considerably below the point reached last month, and find the run of good stone continues downwards and eastwards following the trend of the fault. We are also taking out payable stone to the east of the shaft station above No. 2. We have commenced to drive No. 3 level east, and struck stone panning well at this depth, but in consequence of the exceptionally wet weather, and the compressor plant standing idle pending the laying of the new water service from the Cain river, the water in the shaft gained on us, and driving operations had to be suspended. We have overcome the water for the time being, and are again driving in No. 3 on splendidly mineralised rock, which shows a fair percentage of gold in the pan. We are, however, entirely at the mercy of the elements at this the deepest point of our operations, as a steady downpour of rain must inevitably lead to a rise of water in the shaft, and a consequent suspension of work in No. 3. The ground now open in the mine looks well, and scarcely a day passes without stone carrying visible gold being taken out. In the course of our exploratory operations during the month, we have mined 177 tons of stone, and this on milling has yielded 106 ounces of gold; or an average of 12 dwts. to the ton.

SOUTH CROFTY.—Agent's report, March 3: The engine shaft is sunk 13 fathoms below the 260; the lode has been worth on an average for the whole depth sunk £25 per fathom, for 12 feet long. We shall shortly commence to drive the 272 fathom level east of shaft by boring machine, underneath the good lode gone down below the 260, as reported on at the last account, at three points, for 60 fathoms in length. The deepest point reached in the workings below the 260 is 3 fathoms, where the lode is worth for 9 feet long £40 per fathom. The other points below the 260 maintain their value. The winze under the 245 west of engine shaft on the middle lode is sunk 34 fathoms, and is worth for 9 feet long £30 per fathom. We shall commence to rise over the 260 towards this winze as soon as convenient, so as to open the ground for working between the 245 and 260. No change of importance in the other parts of the mine.—Josiah Thomas.

WEARDALE LEAD.—Report on Weardale company's mines for week ending March 3: Groverake: Slate sill drift west vein continues poor and slow to work, and worth 10 cwt. per fathom. Adamson's drift west, end worth 12 cwt. per fathom. Firestone drift west, strong sparry vein, but poor in ore, end worth 8 cwt. per fathom. 60 fathom level east, the lead of vein is spar and dank mixed. Groverake cubic fathom stopes worth 10, 12, 16, 20, 12, 12, 12, 12, 12, 12, and 12 cwt. per fathom.—Boltsburn: The cross cut south from Watt's level is now in flat ground, broken and poor looking for ore. Forster's crosscut north is now driven 4 fathoms, no payable ground has been discovered. Stopes worth 23, 34, 34, 24, 30, 20, and 34 cwt. per fathom. Driving east from Paul's old ground to hole to Bell's ground is a mixture of spar and stone with a little ore worth 8 cwt. per fathom.—Greenlaw: Watson's drift is in plate under 6 fathoms basal, vein looks better, stope worth 14 cwt. per fathom. Nattrass Gill drift the men have cut 3 feet to the north, and found some vein composed of spar and ore worth 12 cwt. per fathom. Stopes worth 12, 18, 16, 16, 16, 20, 20, 30, and 18 cwt. per fathom.—Sedling: The 56 fathom level is now opened 99 fathoms east from drawing shaft. The crosscut north in scar line from bottom of shaft has been driven 4 feet this week. We have a strong flat composed of rider, quartz, floor spar, and a little ore. We are rising to prove the ground in a place where there is some good floor spar and ore. The 64 fathoms drift east is now in 27-35 fathoms; vein improved, worth 16 cwt. per fathom. The 64 fathoms drift west is in 24-1-6 fathom; vein in plate only poor, but rather improved. Stopes east and west of shaft worth 14, 12, 14, 18, 16, and 12 cwt. per fathom. South vein Stobb's drift east stope worth 12 cwt. per fathom. Ore raised for week 93 tons, ore dressed for week 86 tons, ore and slag smelted for week 131 tons, producing 69 tons of pig lead.

WEST FRANCES.—Agents' report, March 3: The 174 cross cut, north to the east of Bailey's shaft, holed to the 174 west of rise, on the flat lode. The skiproad in Bailey's shaft is nearly completed to the 174 fathom level, and will be ready for drawing stuff in the course of a few days. The lode in the new shaft has improved, and is now worth, for 12 feet long, £40 per fathom. No change of importance in the other workings of the mine.

WEST KITTY.—March 8: In the 108 fathom level west the lode is worth for tin £7 per fathom. The rise in back of 108 fathom level is worth for tin £8 per fathom. The 94 fathom level west the lode is worth for tin £8 per fathom. The 84 fathom level west the lode is worth for tin £13 per fathom. The 60 fathom level east, south of slide, the lode is worth for tin £11 per fathom. The rise in back of 60 fathom level is worth for tin £15 per fathom. The 60 fathom level west lode is worth for tin £12 per fathom. Our stopes and tribute pitches are about the same as last reported. —(Signed) John Williams, Joel Hooper.

WHEAL GRENVILLE.—March 5: At Gould's engine shaft we have finished cutting the bottom plat and are again sinking the shaft, which is down 3½ fathoms below the 232 fathom level. Fortescue's engine shaft sinking below the 225 fathom level is down 9 fathoms. As mentioned in the last report, to keep the shaft in a proper line we can only carry a part of the lode, which is worth for the length of shaft £20 per fathom. All the ends and stopes are without change to note since last reported, and are producing the usual quantity of tin.—(Signed) E. F. Bishop.

WHEAL METAL AND FLOW.—Stephen P. Curtis, February 27: During the past week fair progress has been made in extending the intermediate level east of Parry's shaft. The end is at present disorganised; the kilns contains several branches of white prlan, and is mineralised throughout. The engine, pulverisers, stamps, and incline tram are working very well.

—March 7: In view of the continued fall in the price of tin, and the consequent impossibility, for the present, of carrying on steam operations profitably, the managers have decided to stop the working of the engine on Saturday, March 10th. Work will be carried on as usual at the Blue Bridge and Trellis floors.

COLONIAL, INDIAN, AND FOREIGN MINES.

ALMADA AND TIRITO.—Mine report for the fortnight ending February 10:—Dios Padre: The 350 feet level driving north is on a large lode of hard quartz with occasional green stains. The 350 feet level driving south from Pacheco's winze yields ½ ton of green ore, and the lode is wide and of a very nice appearance. The 250 feet level driving north is without ore, but looks promising. The lode carries a good eastern wall and is composed of quartz and porphyry with stringers of red clay. The lode in the 250 feet level driving south is poor and exceedingly hard, consequently we are making slow progress. Pacheco's winze has reached the required depth for the 350 feet level, and we have commenced driving south.—Stopes: We have broken into old workings in the stopes back of the 156 feet level north of Cruz Verde, consequently the yield from these will undoubtedly decrease very materially. The last two assays gave 92 and 98 ounces of silver per ton. The stopes back of the intermediate below the 12 fathoms level continue to yield fairly well.

JAY HAWK AND LONE PINE.—Captain Prideaux, February 21: I last wrote you on February 13, and since then have sent you the following telegram: "At the bottom of the Shaft Bonanza the vein is improving in depth, average assay value of ore 50 to 55, an average assay gave in gold \$129"; and I have now to report that the ledge at the 1400 north is looking well, the stopes are also looking well, but the Bonanza shaft is looking splendid and improving as the shaft goes down, and I am glad to say we have gold here also, and I hope it will continue to improve. I have let a contract in this shaft for 20 feet; the ore is very hard, and it will be slow sinking.

MOUNT LYELL.—Report for week ending January 24: Engine Shaft: A chamber 10 feet by 8 feet by 6 feet has been cut out at the 100 feet level and securely timbered. Driving west towards the lode was started to-day. In the 50 feet level the north drive has been extended 8 feet, total 25 feet, at which point we holed through to the old winze. The ventilation of the workings has been much improved thereby. The ore shows strong along the drive. Have sunk No. 2 shaft 6 feet, total 70 feet. The country still keeps hard, and tight to break. No. 5 tunnel has been driven 40 feet, total 160 feet. The country passed through has been soft slate, with occasional bars of harder rock.—Ore: During the week 10 tons of ore have been broken and raised, but not yet assayed. The packers have taken away 200 bags of ore, weighing 9 tons 18 cwt. 15 lbs., containing 16,540 ounces of silver.

PESTARENA UNITED.—Mine report, March 3:—Ends: The 55 east on No. 1 lode now yields 3 tons per fathom at 1 ounce per ton; the 70 east 2 tons at 15 dwts., and the 70 west 9 tons at 2 ounces. The A and B lodes at the 70 west have improved, and promise further improvement, the branch in the roof being almost solid pyrites, and averaging 30 centimetres in width, valued at 3 tons per fathom at 1 ounce 10 dwts.—Crosscuts: The 70 north has passed through a branch of quartz 30 centimetres wide, showing a little pyrites, and the character of the ground seems to indicate the vicinity of a lode. The 70 south has intersected a small branch carrying pyrites, but little can yet be said about it. There are 12 stopes at work, averaging 4½ tons per fathom at 1 ounce 4 dwts. per ton.—Stabili Mine: A good branch of ore has just been met with in the Anza level; it is 7 centimetres wide at present, and gives indications of widening, and is valued at 1 ton of 1 ounce ore per fathom. Nothing of importance has been met with in the 18 metre level.—Pumps, &c.: It is hoped the 130 lift will be recovered by the 6th inst. The weather has become much milder, but no appreciable increase has yet occurred in the water. It is hoped that the upper mills will be restarted during this month. All the timber is now near the mine, and the transport will soon be completed.

ST. JOHN DEL REY.—March 5: The R.M.S. *Tagus*, which arrived at Southampton late on Saturday, brought advices up to the 6th February from Morro Velho. Mr. Chalmers reports that he has opened out a stope along the south side of the drivings east and west from the first cross cut in the timber level to make room for tramroads. The second winze from that level was sunk during the month of January 25 feet. The western driving in the tram level was extended 19 feet, making the total length of lode laid open at this horizon 352 feet to the 31st January. 72 feet of the adit were bricked and arched during the month. The gold remittance is a little over £3000. Mr. Chalmers states that the machinery and plant are now coming through satisfactorily; he repeats the complaint that in landing goods at Rio de Janeiro the English ships have had less protection than those of any other nation; nevertheless, the whole of the machinery essential to the working of the mills and reduction plant is now landed, and on its way to the mine.

SHEBA GOLD.—The following report has been received from the general manager for the month of January:—Mine: Above No. 5 level we have discovered a small block of milling ore between Nos. 2 and 3 levels, and Nos. 6 and 11 winzes on the hanging wall, and we are now stopping it out. On No. 4 level, west of No. 25 winze, the ore still keeps up a fair average value. We are clearing the stopes down from No. 1 to No. 3 level of the broken ore, so as to enable us to renew prospecting in those places. On No. 5 level, at the top of No. 17 winze, a small ore bin is being erected for the purpose of holding ore as hoisted from below No. 5 level; for this purpose a skiproad is being laid in No. 17 winze down to No. 6 level. Below No. 5 level, No. 6 level stope is falling off in value. No. 7 level in the west end contains some good ore. During the month we passed through 10 feet in width of very good ore, showing visible gold freely. The west end of level was driven 30 feet. No. 1 north cross cut driven 33 feet. No. 2 north cross cut driven 29 feet. No. 8 level driven 30 feet in rock, which was of low grade most of the distance. No. 1 north cross cut driven 17 feet 6 inches in low grade rock. We are preparing to cut a loading station on No. 9 level. Incline shaft sunk 6 feet during the month in fairly good ore. On the 27th January we struck some very rich rock in the west end of the bottom. At the date of writing this (February 8th) the ric' rock extends all over the shaft from the west to the east end; it is highly pyritic and also shows free gold plentifully. Low level shaft (vertical) sunk 6 feet. North cross cut from shaft to low level tunnel driven 26 feet to the line of tunnel, and all is now in readiness to driven each way on the tunnel. Low level tunnel has been driven 103 feet during the month, and is now in 191 feet 6 inches.

TRANSVAAL GOLD EXPLORATION AND LAND.—Summary of mining operations for the month of January:—Total ore extracted at all places during month, 1241 tons, of which 131 tons from Theta assayed 4 ounces 11 dwts. per ton.—Theta Mine: Total drive, 421 feet, 173 feet being in ore averaging 39 inches thick.—Beta Mine:—Drive, 411 feet; the thickness of the deposit here is variable, sometimes pinching down to 3 inches.—No Workings: Total extraction for month, 90 tons, all of good quality (part of it assayed 11 ounces 16 dwts. per ton).—Kameel's Creek: Chi, north and south: Total drive, 357 feet; ore extracted, 262 tons.—Prospecting: Brown's Hill (Pal): Total drive, 394 feet; ore extracted, 81 tons; prospecting was also being continued at Kameel's Creek, below the present workings, at head of Fraser's Gully, to north of Nu, and on Colombian Hill.

TRANSVAAL GOLD EXPLORATION AND LAND.—From advices received from the general manager, dated January 24 and January 31, the work of mining development and prospecting was proceeding as usual. The figures showing quantities of ore extracted and progress in development are not given on this occasion, as in order to economise the time and labour of the staff now fully occupied with development work, it has been determined that these details shall in future be published monthly instead of weekly. Any new development or discovery will be at once published for the information of the shareholders. The working costs for January were £3200.

CAPE OF GOOD HOPE MAIL SERVICE.—The Union Steamship Company's R.M.S. *Spartan*, which arrived at Capetown at 11 p.m. on Wednesday, the 7th inst., with the outward mails from England made her passage in under 18 days, net steaming time. This is the fastest passage yet made by the *Spartan*, and is her 51st voyage between Southampton and Cape Town.

ALAMILLOS.—Mine report dated February 23: The lode in the 160 fathom level driving west of Taylor's engine shaft has improved, and turns out good lumps of ore, worth 2 tons per fathom. In the 100 west of Judd's engine shaft, worth 2 tons per fathom, the lode is compact and of a kindly appearance. The 100 east of the same shaft has further improved, and is turning out paying work, worth 1 1/2 tons per fathom. Isidoro's winze, below the 70, worth 1/2 ton per fathom. The lode is wide, and rapid progress is being made in sinking. The stopes continue to turn out well. The works at surface are kept on very regularly, and the machinery is in good working condition. Estimated raisings for March, 300 tons. The tributers returned 34 tons of ore in the past month.

AUSTRALASIAN.—Fortnightly report of Mr. John James, manager, dated January 18: In the underhand stope going north on the Orient reef there is about 2 feet of crushing stuff showing a little gold. The stopes over the level going south show about 18 inches of crushing stuff, but there is not much gold to be seen in it.—690 feet level: The stopes over this level close to our eastern boundary show a good body of crushing stuff with a little gold. There are 10 heads of stampers crushing for the mine, and 15 heads for No. 2 Great Eastern. Everything about the mine, winding engine and battery, is in fair working. There are 40 men employed, 30 on the mine and 10 at the battery.

CHAMPION REEF.—Fortnightly report of Captain James Rowe, superintendent, dated February 14: Dalyell's Shaft: This has been sunk 16 feet 6 inches, total depth 667 feet 3 inches. The lode during the last few feet sinking has been disordered by a hard bar of ground coming in from the west. The 620 feet level north has been driven 41 feet 6 inches, total length 280 feet 6 inches. This is communicated with winze sunk below 530 south of Garland's shaft. No. 1 winze below 620 feet level north sunk 7 feet 3 inches, total depth 24 feet 9 inches. Lode 1 foot 6 inches wide, assaying 1 ounce 6 dwts. of gold per ton. No. 1 winze below 620 south sunk 16 feet 6 inches, total depth 41 feet 6 inches. Lode 1 foot 6 inches wide, assaying 1 ounce 2 dwts. 12 grains of gold per ton.—Garland's Shaft: This has been sunk in the dyke 10 feet 9 inches, total depth 625 feet 6 inches. 530 feet level north of west crosscut north of shaft driven 36 feet 3 inches, total length 221 feet 9 inches. Lode 5 feet wide, assaying 1 ounce 10 dwts. of gold per ton. 530 south of crosscut driven 31 feet 6 inches, total length 41 feet 9 inches. Lode 2 1/2 feet wide, assaying 1 ounce 9 dwts. 7 grains of gold per ton. Rise in back of 530 south of shaft risen 2 feet 6 inches, total height 52 feet 6 inches. Lode 3 feet wide, assaying 16 dwts. 18 grains of gold per ton. 440 feet level north of west crosscut north of shaft driven 25 feet 3 inches, total length 292 feet 6 inches. The lode is disordered and without value. No. 2 winze below level sunk 7 feet 3 inches, total depth 11 feet 9 inches. Lode 3 feet wide, assaying 2 ounces 11 dwts. 14 grains of gold per ton. 440 feet level south of crosscut driven 33 feet 6 inches, total length 43 feet 9 inches. Lode 4 feet wide, assaying 1 ounce 18 dwts. of gold per ton. 340 feet level north of west crosscut north of shaft driven 32 feet 6 inches, total length 653 feet 4 inches. Lode improved; is now 3 1/2 feet wide, assaying 2 ounces 1 dwts. 8 grains of gold per ton. No. 2 winze below level sunk 6 feet, total depth 10 feet 3 inches. Lode 2 feet wide, assaying 2 ounces 2 dwts. 7 grains of gold per ton.—Ribblesdale's shaft: Owing to our having cut a large stream of water in the 440 feet level south of this shaft, which necessitated our fixing a lift at the 440, we have been unable to do anything in sinking the shaft. We have completed the fixing of lift, and are now forking out the water. The 440 south has been driven 1 foot 5 inches, total length 210 feet 8 inches. Lode very small and without value. Winze below 340 north level on fold sunk 19 feet 9 inches, total depth 45 feet 6 inches. Lode 3 1/2 feet wide, assaying 1 ounce 12 dwts. 12 grains of gold per ton. No. 2 rise in back of level or slope of fold risen 4 feet 6 inches, total height 91 feet 3 inches. This is communicated with stopes below 240 north on fold and opened up a good section of stopping ground. Winze below 240 south of shaft sunk 7 feet, total depth 80 feet. Lode 1 1/2 foot wide, assaying 1 ounce 16 dwts. 10 grains of gold per ton. 200 feet level north of No. 2 rise in back of 240 south of shaft has been driven 14 feet 9 inches, total length 194 feet 11 inches. Lode 5 feet wide, assaying 1 ounce 9 dwts. 8 grains of gold per ton. This is communicated with top of No. 1 rise, and in future will be called 200 north of No. 1 rise. Rise in back of level risen 14 feet, total height 93 feet. Lode 3 feet wide, assaying 18 dwts. 8 grains of gold per ton. The 200 feet level south of No. 1 rise in back of 240 north driven 15 feet 9 inches, total length 101 feet 6 inches. Lode 1 foot 3 inches wide, assaying 1 ounce 8 dwts. 4 grains of gold per ton.—Carmichael's shaft: The 315 level north driving through the east and west dyke has been driven 23 feet 6 inches, total length 460 feet 6 inches. Rise in back of 315 south of crosscut west of shaft to communicate with the vertical shaft has been put up 15 feet 6 inches, total height 38 feet 6 inches.—Rowe's shaft: This has been sunk 12 feet 6 inches, total depth below 225 feet level 81 feet. Lode 1 foot 6 inches wide, assaying 1 ounce 12 dwts. 3 grains of gold per ton.—New well: We are sinking this near the south-east boundary, with the expectation of meeting with water for drinking purposes. The well has now been sunk to a depth of 58 feet, but as yet we have not met with any water.—Stopes: Ribblesdale's shaft: Stope in back of 240 south, north of No. 2 rise, cut 18 fathoms 1 foot 4 inches. Lode 4 feet wide, assaying 1 ounce 8 dwts. of gold per ton. Stope in back of 240 south, south of No. 1 rise, cut 8 fathoms 2 feet 7 inches. Lode 2 1/2 feet wide, assaying 1 ounce 18 dwts. of gold per ton. Stope in bottom of 240 north on fold cut 4 fathoms 2 feet 5 inches. Lode 5 feet wide, assaying 2 ounces 7 dwts. of gold per ton. Stope in bottom of 200 south of north rise cut 2 fathoms 1 foot 2 inches. Lode 2 feet wide, assaying 1 ounce 16 dwts. 8 grains of gold per ton.—Garland's shaft: New stope in back of 530 north of west crosscut south of rise cut 2 fathoms 9 inches. Lode 2 feet wide, assaying 2 ounces 12 dwts. 17 grains of gold per ton. Stope in bottom of 340 north of shaft south of winze cut 2 fathoms 5 feet 10 inches. Lode 2 1/2 feet wide, assaying 1 ounce 3 dwts. 13 grains of gold per ton. Stope in back of 340 north of west crosscut, north of No. 2 rise, cut 2 fathoms 3 feet 6 inches. Lode 2 feet wide, assaying 1 ounce 10 dwts. of gold per ton. This is suspended for a time. Stope south of rise, cut 4 fathoms 2 inches. Lode 3 feet wide, assaying 2 ounces 10 dwts. of gold per ton. Stope in bottom of 240 south of west crosscut south of winze, cut 21 fathoms 4 feet. Lode 3 feet wide, assaying 1 ounce 12 dwts. 10 grains of gold per ton. Stope above 240 south of west crosscut cut 4 fathoms 1 foot 3 inches. Lode 1 1/2 foot wide, assaying 19 dwts. of gold per ton. Stope in back of 240 north of west crosscut south of No. 1 rise cut 1 fathom 2 feet 1 inch. Lode 3 feet wide, assaying 1 ounce 1 dwts. 4 grains of gold per ton.—Dalyell's Shaft: Stope in back of 530 south north of rise cut 10 fathoms 6 inches. Lode 2 feet wide assaying 1 ounce 18 dwts. 4 grains of gold per ton. Stope south of rise cut 2 fathoms 2 feet 6 inches. Lode 2 feet wide, assaying 1 ounce 3 dwts. 14 grains of gold per ton. Stope in bottom of 390 south north of 440 south rise cut 8 fathoms 5 feet. Lode 1 foot 9 inches wide, assaying 2 ounces 2 dwts. 10 grains of gold per ton. Stope south of rise cut 18 fathoms 5 feet 2 inches. Lode 2 feet wide, assaying 18 dwts. 18 grains of gold per ton.—The above stoping is for January month. Returns: During January month 2080 tons of quartz was stamped which produced 3040 ounces of gold, an average yield of 1 ounce 9 dwts. 5 1/2 grains of gold per ton. New tailings machinery: This was started on Friday last.

CAPE COPPER.—Captain Henwood, January 31: Ookiep: The rock in the 130 fathom crosscut north of 75 winze is in massive quartz. The 117 fathom crosscut south of extreme east level is also in massive quartz, and the ground in the 117 fathom crosscut north of east level is composed chiefly of gneiss. There is no material change to notice in the 105 fathom level south east of No. 11 level. We hope to communicate this level with No. 76 winze (sunk from the 92 fathom level) during the present month. The rock in the 92 fathom crosscut south of 46 winze is still containing spots of copper ore; on the whole, the ground is looking more favourable than for some time past, the rock is not so compact, but jointy, and between these joints thin veins of copper ore are running through. The drive in the back of the 92 fathom level south east of 42 winze is worth about 6 tons of copper ore per fathom. We have started to sink

in the bottom of this drive to prove the productive part passed through. The intermediate level between the 63 and 80 fathom levels south east of the new shaft is yielding 5 tons of copper ore per fathom. The ground in cutting out sides of the 63 fathom crosscut south east of No. 16 level is producing 7 tons of copper ore per cubic fathom. We have also started to sink in the bottom of this crosscut in one of the places where we have been engaged in cutting out side of level, about 8 fathoms back from the extreme end. The stopes throughout the mine continue to yield remarkably well.—Captain Henwood, January 31: Trial Mines: Nababess south: The rock in bottom of shaft sinking below the 59 fathom level is still disseminated throughout with fine specks of copper ore.—Spectakel: The drive in the 36 fathom level south east of new shaft is yielding 2 tons of copper ore per fathom, and the stopes at the different points of operation, on the whole, are looking better than for some time past.—Copperberg: The ground in bottom of winze sinking below the east drive has fallen off in yield, at the present time it is only producing stones of copper ore, not to value.—Returns for January: Ookiep, 2170 tons of 23 per cent.; Spectakel, 100 tons of 29 per cent.

COROMANDEL.—Superintendent's report for the fortnight ending February 10: Coromandel Shaft: 420 feet level north driven 18 feet, total from cross cut 30 feet; the lode here has fallen off both in size and value since its intersection. There is a little quartz in the present end with indications of improvement. As this shoot appears to have come in from the south, we shall during the coming fortnight put a machine to drive upon its course in that direction. The lode in 320 feet level north has greatly improved in size, being now quite 2 1/2 feet wide; the assay value this week is 12 dwts. per ton; 25 feet has been driven during the fortnight making the distance from shaft 257 feet. Prospect shaft has been sunk 12 feet since last report, its total depth being 447 feet from surface. The winze under 440 north has been sunk a further 20 feet and suspended; from it, at a depth of 500 feet, a level has been started southward to communicate with Prospect shaft. 440 south of cross cut east has been driven 15 feet, and at a distance of 106 feet 6 inches from cross cut has intersected the cross course; the lode made a little quartz against the latter, but nothing of great value has been discovered. The ground in this direction having been now thoroughly proved, we have returned the drill to the north end, and started to cross cut in a north east direction through the dyke.

DON PEDRO.—February 5: Stope No. 1: This is turning out very fair mineral, that broken near the footwall of the lode being very good. Advanced for the month for 8 feet in width 10 feet. Stope No. 2 is of the same quality as No. 1, but as it is not necessary to carry so much of the country in extracting the lode, the average yield is a little higher. Stopped for the month for 8 feet in width 7 feet. Stope No. 4, which was resumed on the 9th ult., is yielding for its whole height and width mineral of high quality. This stope is 6 feet wide, and has been advanced 18 feet.—Stope No. 8: This has been in work since the 11th ult., and has been stopped for 7 feet in width, 8 feet. There has been no change in the mineral broken here since it was last reported on. In 60 fathom cross cut the driving of the straight cross cut has been resumed. The drivages to the north and south of it have to a small extent decreased the quantity of water exuding at this point, but very careful handling is still necessary, and progress is consequently slow. Driven since the 10th, 10 feet. The north east drive was driven in last month 6 feet.—Pumping Machinery: On the 28th a stop was made to repair some of the pit work, put in a new set of stays and roll, change the bucket, &c. At the same time the machinery at the mouth of the mine was overhauled, and two of the transmission carrying sheaves were repacked.

EAGLEHAWK CONSOLIDATED.—The following is an abstract from the mine manager's report, dated Maldon, 20th January:—Since my last report of the 30th December we have cut the plat at the 726 feet level, and have been sinking 10 days. For the 10 days' work the contractors have sunk 25 feet, making the shaft 41 feet below the plat, and 767 feet from the surface. During the fortnight we have sunk through a channel of quartz and bluestone mixed 6 or 7 feet wide, with two rough walls bearing to the east at an angle of about 60 deg.; the ground under this is clean bluestone. The tributers are still working on; with poor results at present.—Thomas Hodge.

FORTUNA.—Mine report dated February 28: Canada Inco Mine: In the 150 fathom level driving west of O'Shea's engine shaft, worth 1/2 ton per fathom, the lode has become smaller and has declined in value. The lode in the 110 west of San Pedro's shaft does not contain sufficient ore to value.—Los Salidos Mine: The 200 east of Taylor's engine shaft, worth 1 1/2 ton per fathom, the lode continues to lay open good stopping ground. In the 105 east of Palgrave's shaft the lode is small and poor. Cordova's winze sinking below the 188 fathoms level, worth 2 tons per fathom. This winze is situated east of Taylor's shaft, and a little behind the 200 fathom level.

GOLD FIELDS OF MYSORE.—Mine report for fortnight ending 12th February: South Shaft: The 470 feet level north of shaft has been driven 5 feet, total length 63 feet 6 inches. Lode 2 1/2 feet wide, assaying 1 ounce 4 dwts. 16 grains of gold per ton. The 470 south has been driven 5 feet, total length 53 feet. Lode 1 foot 3 inches wide, assaying 1 ounce 1 dwts. of gold per ton. The 380 feet level north has been driven 3 feet 9 inches, total length 172 feet 1 inch. Lode 1 foot wide, assaying 1 ounce of gold per ton. The 380 south has been driven 5 feet 6 inches, total length 145 feet 9 inches. Lode 3 feet wide, assaying 1 ounce 2 dwts. 3 grains of gold per ton. The 280 crosscut east has been driven 6 inches, total length 204 feet 9 inches. Very slow progress has been made here, owing to the inexperience of the coolies employed. We are now trying to engage another contractor.

GOLD FIELDS OF MYSORE.—Report on prospecting operations for fortnight ending February 14: Golconda block: The drive south of main crosscut 56 feet east of the bottom of the No. 18 shaft has been driven 4 feet, total distance 4 feet. The lode being small and poor, we stopped the drive. Not being able to sink further with our present appliances, we ceased operations.—West Balaghat block: We have taken the water out of the No. 1 shaft, cleaned it up, and have started to drive both north and south of the bottom, 107 feet from surface. South drive has been driven 17 feet, total distance 17 feet. Lode in the face 1 foot wide, assaying 6 dwts. of gold per ton. North drive has been extended 10 feet, total distance 10 feet. Lode in the end 1 foot 3 inches wide, assaying 17 dwts. 15 grains of gold per ton. We have resumed the sinking of the No. 2 shaft, and have sunk it 8 feet, total depth 109 feet. Lode in the bottom 1 foot 4 inches wide, assaying 15 dwts. of gold per ton. South drive has been driven 7 feet 6 inches, total distance 50 feet 3 inches. Lode in the end 9 inches wide, assaying 1 ounce 15 dwts. of gold per ton. North drive has been driven 7 feet, total distance 41 feet 6 inches. Lode in the end 1 foot 3 inches wide, assaying 13 dwts. 18 grains of gold per ton. No. 3 shaft has been sunk 24 feet 4 inches, total depth 109 feet. Lode in the bottom is changing from a soft to a harder rock. It is 2 feet wide, assaying 10 dwts. 9 grains of gold per ton. No. 4 shaft has been sunk 6 feet 9 inches, total depth 95 feet 3 inches. Lode in the bottom 1 foot 4 inches wide, assaying 18 dwts. 20 grains of gold per ton. The ground in this shaft is hard and spare for sinking.—Road block: The shaft in the No. 1 trench north No. 1 eastern lode has been sunk 23 feet, total depth 49 feet. Lode in the bottom 2 feet wide, assaying 6 dwts. of gold per ton. Having met with water in this we were obliged to suspend operations. 200 feet north of the above a trench 20 feet long, 4 feet deep, 3 feet wide. In this we met with the outcrops of the vein, and have sunk on it 10 feet. Lode in the bottom 3 feet wide, assaying 5 dwts. 5 grains of gold per ton.

KEMPINKOTE.—Superintendent's report for fortnight ending February 13: Garland's shaft has been sunk 5 feet, making a total depth of 121 feet 3 inches. The pumping engine was started on the 10 inst., and is working most satisfactorily. I now hope we shall have no further trouble with the water. Henty's shaft has been sunk 6 feet 6 inches, making a total depth of 155 feet. There is a great change in the rock; it has become very hard indeed, and it will now be difficult to make rapid progress in sinking with hand labour. The greater part of the lode is still in the hanging; the hard ground seems to have thrown it a little further to the west. There is a slight improvement in the value.—Prospecting: The north

drive from No. 4 pit has been extended a further distance of 39 feet 6 inches, making a total of 50 feet; the end is still in old workings. The south drive has been temporarily suspended. No. 5 pit has been sunk 15 feet, making a total depth of 44 feet. We are now down to the water level, and have commenced to crosscut east to the old workings, 7 feet having been driven in this direction.

BARRATT GOLD.—The mine manager, writing on February 9, reports the gold return for January, 400 ounces 3 dwts., of which total 345 ounces were produced by the cyanide process from 800 tons mixed ore and tailings, giving an average of 8 1/2 dwts. per ton. The December cyanide yield was 286 ounces. The manager considers the cyanide return very satisfactory, and asks authority to increase the works so as to be able to deal with a largely increased amount of ore and tailings per month. The directors, in anticipation of this request, have some time since arranged for the immediate erection of three additional vats. The mill only ran short time throughout the month, bad weather having much delayed mining and transport; latest advices, however, report all now to be going well.

HARQUAHALA.—Copy of Mr. T. Allen's report for the month of January: Mining Department.—Ore Breaking: Discovery Vein, above first level south: 550 tons of ore, with an average value \$6 per ton free gold, have been extracted and conveyed to the big stope. We have now filled the big stope to a point above the second level from which we can work with advantage in the vicinity of the old shaft; operations therefore in this section have been temporarily suspended until the mill starts again.—Prospecting Department: Intermediate crosscut north has advanced 40 feet; its value is low grade.—Footwall Crosscut No. 2 Fifth Level: About 140 feet south from the old shaft a crosscut is being driven in an easterly direction for the purpose of prospecting the iron vein. It is in quartzite; has advanced 20 feet, but has no milling value at present. Hanging wall crosscut fifth level has advanced 38 feet. A small seam of low grade ore, 6 inches in width, has been met with, and we are still following it up. Sixth level main crosscut has advanced 80 feet during the month. Its total length is 235 feet. The developments here have been various and interesting. About 170 feet in a section of mineralised ground was encountered, yielding assays varying from \$4 to \$20 per ton in free gold, its width being 2 1/2 feet. 20 feet further south we ran into a pocket of base ore, with a low grade value. Beyond this, 8 feet of shale and porphyry mixed, and then we cut the Discovery vein. At the point of intersection it is 6 feet wide, assaying \$20 per ton in free gold. I find no pyrites of iron in panning, but a trace of copper is apparent. This orebody is the continuation in depth of the body which has been reported on as been "Discovery vein above 5th level" in the ore breaking department. As far back as last September I reported that the Discovery and Horse veins, which had united at a point above the 4th level, appeared to have separated below that point and continued down on their respective dips; this was due to a large roll in the footwall. After entering and stopping on the 5th level, this "horse" in the footwall disappeared, the two veins joined forces again, and have now a south-east dip, lying on the porphyry, so that we regard that now as the true footwall. The developments are precisely the same in the 6th level. The vein is lying on the porphyry and dipping south-east. The footwall has, moreover, flattened very considerably, and accounts for the long drift before meeting the vein. The vein has been above the drift. I shall continue to report on this body of ore as the Discovery vein, as I look upon the so-called Horse vein as past history. The ground for the next 8 feet south of the Discovery vein contains about \$4 per ton in free gold, when the crosscut enters another seam of ore 3 feet wide, assaying \$12 per ton. This seam possesses some of the characteristics of the Iron vein, as its distance from the deep winze on that vein is not great. It may, however, prove to be a section of the Discovery vein; further exploration will satisfy us on this point. Our progress at present is made with the utmost caution on account of the accumulation of water in the deep winze. This water must be drained off gradually to prevent any sudden influx into the level and sump. Sixth level No. 1 crosscut has advanced 25 feet. We have met with one or two small seams or veinlets of base ore. Several assays have been made and values vary from \$16 in gold, 4 ounces in silver, 30 per cent. copper, to \$104 in gold, 26 ounces in silver, 30 per cent. copper. Sixth level No. 2 crosscut, 71 feet south of crosscut No. 1 we have started a parallel crosscut. It has been driven 20 feet. From its face a raise is being put in to intersect the discovery vein on its inclination between the sixth and fifth levels. This raise will also be valuable as an ore chute and ventilator. The distance raised is 15 feet. New shaft has been sunk 70 feet. Its total depth is 235 feet. At the fourth level a station has been opened and a trip plat cut. The length of the tunnel in the Golden Eagle group is now 212 feet, the distance advanced for the month being 55 feet. Developments have been a seam of ore 2 feet in width, with an average value of \$20 per ton. The face of the tunnel is in quartzite. Everything underground is in good working order. Miscellaneous work: The old battery of boilers has been built in, all the steam connections made, and the boilers are ready for use. The foundations for the air compressors have been completed. The compressor itself has arrived and is being put into position. The mill engine has been overhauled and put into thorough repair. The Diamond drill has been received and is being prepared for a start as soon as the air compressor is ready.—Additional stamps: The order has been placed with the Union Iron Works for immediate shipment; a part of the lumber is on the ground for the buildings, and I expect the heavy timbers for the battery very shortly. The grading has been completed some time, and the battery block-pits are ready.—Golden Eagle ore: I have asked for bids from teamsters and contractors for the hauling of ore from the Golden Eagle Group. The work in all departments is well in hand, and we are making every effort to have everything ready to start the mill on a producing basis by 1st of March. The health of the camp is good, the weather bright but cold.

LINARES.—Mine report dated February 28: Pozo Ancho Mine: Peill's Engine Shaft: The 200 fathom level driving west worth 1/2 ton per fathom. There are good stones of lead in the bottom part of the end, but the upper part is poor. The 155 west is now yielding a little ore, but not sufficient to value. The lode in the 178, west of Warne's cross cut, is very large, and is spotted with lead ore. No. 275 winze sinking below the 135 fathom level, worth 1/2 ton per fathom. The lode continues small and regular. The stopes continue to yield well. Surface works are kept on very regularly, and the machinery is in good working order. Estimated raisings for March, 200 tons. The tributers returned 98 tons of mineral in the past month.—Los Quintientos Mine: Taylor's Engine Shaft: The 185 south has been hindered in the past fortnight as the men have assisted in casing and dividing the shaft. The lode in the 165 east is small, but continues to turn out some ore. The 150 east has fallen off in value during the past few days, and is now worth 3 tons per fathom. In the 130 east the lode is large, but continues unproductive. Martos winze sinking below the 150 fathom level has been holed to the 165 fathom level. The lode was poor. Estimated raisings for March 200 tons. The tributers returned 44 1/2 tons of mineral in the past month.

MOUNT ZEEHAN (Tas.).—The manager writes for week ended January 23: Argent Section: Main engine shaft No. 6 lode 72 feet level north stope in back of level continued. Ore raised 103 tons 4 cwt., fairly good seconds, and 3 tons 10 cwt. firsts. Lode is from 3 feet to 4 feet wide, and carries good ore. No. 4 lode 72 feet level north stope in back of level continued. Ore raised 65 tons 8 cwt., medium quality seconds. The 72 feet level south ore raised 14 tons 4 cwt.; low quality seconds. The drive at the 132 feet level has been extended 12 feet. The course of this drive has the appearance of being the Frances lode; a little further work in this direction will determine this point. North air shaft 30 feet level north has been extended 2 feet, total 27 feet. Ore raised 5 tons 8 cwt., seconds, heavily charged with pyrites. Whip shaft on No. 4 lode has been sunk 5 feet, total 30 feet. Lode 1 foot 6 inches wide, carrying low quality seconds. The concentrator has been kept running 63 hours, and has milled 206 tons seconds for 31 tons 11 cwt. concentrates, containing about 23 tons 6 cwt. lead and 2452 ounces of silver. Machinery working well. Consumption of fuel much reduced since overhaul of boilers.

COBBEGUM.—Superintendent's report for fortnight ending February 13: Taylor's shaft has been sunk 6 feet, total depth below the 460 feet level 43 feet. Lode 1 foot 6 inches, value 1 ounce 1 dwt. 19 grains. The 460 feet level south has been advanced 26 feet, total 100 feet. Lode 3 feet 3 inches, value 1 ounce 17 dwts. 10 grains. The 360 feet level south advanced 7 feet, total 523 feet 3 inches. Lode 9 inches, assaying 8 dwts. 17 grains. No. 3 winze 360 feet level south sunk 6 feet 9 inches, total 39 feet 3 inches. Lode 3 feet 6 inches, value 1 ounce 3 dwts. 22 grains. Wallroth's Shaft: During the fortnight the shaftmen have completed the plate at the 760 feet level, and in addition the shaft has been sunk 6 feet 6 inches, total 772 feet. Lode 2 feet, assaying 1 ounce 4 dwts. 4 grains. The double skip roads have been laid to the 760 feet level. The driving of the 760 feet levels north and south will be resumed in the course of a few days. The 660 feet level south advanced 29 feet, total 349 feet. Lode 1 foot 6 inches, value 12 dwts. gold per ton. No. 1 winze 660 feet level south sunk 3 feet, total 34 feet 6 inches. Lode 1 foot 6 inches, assaying 1 ounce 3 dwts. 22 grains per ton. No. 2 winze same level sunk 4 feet, total 10 feet. Lode 1 foot, value 8 dwts. 17 grains. No. 1 winze 660 feet level north sunk 2 feet, total 27 feet 6 inches. Lode 3 feet wide, assaying 1 ounce 12 dwts. 16 grains per ton. No. 1 rise 660 feet level north 2 feet 6 inches risen, total 39 feet. Lode 2 feet, assay value 3 ounces 8 dwts. 21 grains. This has now been communicated with No. 1 winze 560 feet level north. The 560 feet level south advanced 18 feet 6 inches, total 734 feet 3 inches. Lode 1 foot wide, value 15 dwts. 10 grains per ton. No. 2 winze 560 feet level south sunk 2 feet 3 inches, total 45 feet. Lode 1 foot, assaying 2 ounces 6 grains per ton. No. 3 winze same level sunk 1 foot 6 inches, total 42 feet 6 inches. Lode 6 inches, value 10 dwts. 20 grains. No. 4 winze sunk 2 feet 6 inches, total 42 feet 6 inches. Lode 1 foot 6 inches, value 6 dwts. 10 grains. No. 5 winze sunk 5 feet, total 17 feet 6 inches. Lode 2 feet 6 inches, assaying 2 ounces 3 dwts. 13 grains. No. 6 winze sunk 8 feet, total 10 feet. Lode 2 feet, value 1 ounce 13 dwts. 18 grains. No. 4 rise 560 feet level south 4 feet 9 inches risen, total 37 feet 6 inches. Lode 3 feet, assaying 16 dwts. 8 grains. No. 4 winze 460 feet level south sunk 4 feet 6 inches, total 60 feet 6 inches. Lode 3 feet, assay value 1 ounce 10 dwts. 12 grains per ton. No. 5 winze same level sunk 5 feet 6 inches, total 81 feet 6 inches. Lode 3 feet, value 1 ounce 1 dwt. 19 grains. No. 6 winze sunk 5 feet 9 inches, total 53 feet. Lode 2 feet 6 inches, value 2 ounces 3 dwts. 13 grains. No. 7 winze sunk 6 feet 3 inches, total 44 feet 6 inches. Lode 3 feet 6 inches, assaying 1 ounce 17 grains. Level south-east on apparent fold 215 feet level north has been extended 6 feet, total 28 feet. Lode 1 foot 3 inches, assaying 4 ounces 7 dwts. 2 grains of gold per ton. Low's shaft sunk 3 feet, total depth 537 feet 1 inch. 510 feet level south advanced 9 feet, total 78 feet 6 inches. No lode. Cross cut west 510 feet level south extended 3 feet, total 6 feet. Intermediate level north back 200 feet level south advanced 7 feet, total 67 feet. Lode 10 inches, assay value 16 dwts. 8 grains. Probyn's Shaft: 950 feet level south advanced 20 feet 3 inches, total 28 feet. No lode. Since the last report we have cut through the cross course in this level. 950 feet level north from cross cut east advanced 22 feet, total 41 feet. Lode 1 foot 3 inches, assaying 1 ounce 13 dwts. 18 grains. 850 feet level south extended 11 feet, total 162 feet 9 inches. Lode 10 inches, value 5 dwts. 10 grains. No. 1 winze 850 feet level south sunk 8 feet 6 inches, total 10 feet 6 inches. Lode 9 inches, assaying 6 dwts. 12 grains. No. 1 rise same level risen 4 feet 6 inches, total 6 feet 6 inches. No lode. We have resumed the sinking of the No. 2 winze in the 650 feet level south 3 feet sunk, total 39 feet 6 inches. No lode. No. 2 trial shaft sunk 7 feet 3 inches, total 200 feet. Lode 3 feet, assaying 1 ounce 17 grains of gold per ton. We have 40 stopes working throughout the mine yielding quartz of fair average quality. These will be measured and reported at the end of the month. Surface: Good progress has been made with the erection of No. 3 Walker's air compressor, and we hope to have the engine at work by the end of the current month. The engine for No. 3 set of tailings machinery has been delivered, and the engineer commenced its erection on Monday last. The pans and settlers being nearly all fixed in position, we shall endeavor to start this machinery about the end of March.

PUNJOM.—Extract from acting manager's report for December: August Shaft: The ground has not been so favourable for sinking. It is harder and more difficult for blasting, and there is a little more water to contend with. The water from the heavy rains finds its way down the shaft, and makes it very wet and dirty for working. However, I think fairly good work has been done. Sunk during the month 14 feet, total depth 74 feet. 160 feet north drive driven. Small Surface Shaft: To go down on top stopes have been sunk 20 feet, and from this point 16 tons have been sent to surface. Trial Shaft: Since my last we have struck a leader showing free gold in the stone. I hope soon to get on the main body, which should be met with soon. Sunk during the month 15 feet, measured to-day 35 feet. I have commenced one further south on the same line of reef. I feel confident of meeting with good stone. Top stope eastern section has been partially worked out, coming into mullock, and the Chinese old workings. Sent to mill from this point 134 tons 15 cwt. Top stope, intermediate section was mullocked up, and stoping continued with a good complement of men, and from this point 181 tons have been sent to mill. East bottom stope has been mullocked up, and stoping resumed with a full complement of men, taking out the section of ground standing between the top and bottom stopes, sent to mill from this point 272 tons 10 cwt. Bottom west stope has been mullocked up, and stoping resumed with a fair complement of men. We have not forced this point, as we are rather pressed for room for storage of quartz. Sent to surface from this point 133 tons. Drive on footwall of intermediate stope was extended 17 feet. I stopped it during the month, as we could not well get away the quartz sent to surface. From this point 28 tons. North drive top stope was extended during the month 21 feet. I stopped this drive as I saw no prospect of meeting with any leaders of value, and brought the men back, and opened up a leader which we had previously passed through, and from this point 4 tons of good stone was sent to the mill. No. 4 west drive has been extended 19 feet 6 inches. This does not show much progress; the ground is much harder, and it does not show so promising. I think we are under the lode. I will put out a cross cut and ascertain if it is so. From this point 6 tons have been sent to mill. Footwall drive south has been driven 37 feet, passing through several stringers of quartz of no value. If no lode is met with during current month, I will put a cross cut off this level east, as we may be possibly away from the line of reef. Our trial shaft, however, will prove this, and I have great hopes that the ground south now being prospecting will turn out well, and I certainly think we shall open up a new mine. Drive on footwall of intermediate stope to connect with eastern stope for the purpose of opening a stope higher and mullocking same was driven 8 feet in mullock. We have just come into good stone, producing specimen gold. This is the same leader and run of gold from which the August nugget was found by self 25th August, 1893.—Specimen: I send you a sample of gold found by parcels post (two nuggets). Output for the month 775 tons, milled during month 600 tons, added to stock 176 tons. The Berdan pans have treated 15 tons of blanket washing and concentrates for 89 ounces 7 dwts. of amalgam about 33 ounces of gold. We are treating blanket washing and concentrates from daily milling. The better concentrates from previous milling is stacked away, and mixed with other concentrates.—Small dam of reservoir: A contract was given to strengthen this, and the men are now engaged on this work.—New boiler: We have no advice of this having been shipped from Singapore. I hope, however, it will be up in time for us.—New machinery: We hope to have this ready end of this month, and if the boiler should not be up we will run the new battery with a portion of the old, and do the necessary repairs which cannot be much longer delayed to the present mill.—Building: A new changing house has been built on the mine for the miners, and one end of it serving as an office for the foreman carpenter.—General: Everything coming under this head is having our attention. We have had to devote a good deal of our labour to raising surface of mine, to keep the water from going down the mine owing to the settlement of the ground. This is now in good order, as also preparing site for storage of firewood at m l, and things generally are going on satisfactorily.

EXPORT AND IMPORT TRADE.

THE BOARD OF TRADE RETURNS—FEBRUARY TABULAR STATEMENT.

Specially compiled for "The Mining Journal" from the Board of Trade Returns.

THE Board of Trade Returns show that the Imports for February show that the Imports for February amounted to £38,984,085, compared with £29,759,640 in February, 1893, thus showing an increase of £9,224,445. The exports for last month were £17,679,449, against £17,093,309 in 1893, giving an increase of £586,140. The Imports for the two months ended February, amounted to £72,442,998, against £62,886,110, being an increase of £9,556,888, compared with the same period last year. The Exports for the two months were £35,831,329, against £35,119,328, being an increase of £712,001.

EXPORTS:—SUMMARY OF INCREASES AND DECREASES.

PRINCIPAL AND OTHER ARTICLES.	QUANTITIES.		VALUES.	
	INCREASE.	DECREASE.	INCREASE.	DECREASE.
Raw Materials:				
COAL and Patent Fuel ... Tons	475,114	—	£418,223	—
COAL, &c., shipped for steamers' use ... Tons	126,053	—	—	—
Metals:				
BRASS, and manufactures of	1,074	—	463	—
COPPER, unwrought and wrought ... Cwts.	4,074	—	5,656	—
HARDWARE and cutlery ... £	—	—	10,132	—
IMPLEMENTS and tools, and parts thereof ... £	—	—	1,415	—
IRON, unwrought and wrought ... Tons	—	17,362	207,872	—
LEAD, pig, rolled, &c. ... Tons	1,332	—	14,652	—
PLATE, and plated gilt wares &c. ... £	—	—	63	—
TELEGRAPH WIRE, &c. ... £	—	—	35,622	—
TIN, unwrought ... Cwts.	1,317	—	3,194	—
ZINC OF SPALTER ... Tons	—	6,559	6,222	—
OTHER ARTICLES ... £	—	—	3,759	—
Total ...	—	—	52,220	236,835
Machinery:				
Steam engines ...	—	—	12,512	—
Other descriptions ...	—	—	110,719	—
Total ...	—	—	123,231	—
ALKALI ... Cwts.	—	63,170	—	37,732
CEMENT ... Tons	—	333	—	2,669
PRODUCTS OF COAL ... £	—	—	—	5,786

EXPORTS:—BRITISH AND IRISH PRODUCE.

PRINCIPAL AND OTHER ARTICLES.	QUANTITIES.		VALUES.	
	Month ending Feb. 28.	Month ending Feb. 28.	Month ending Feb. 28.	Month ending Feb. 28.
Metals and Articles Manufactured therefrom (except Machinery):	1893.	1894.	1893.	1894.
BRASS, and Manufactures of, not being Ordnance	7,055	8,129	31,147	31,615
Copper: Unwrought, in Ingots, Cakes, or Slabs, and Precipitates:				
To Germany ...	5,778	7,676	13,708	17,702
" Sweden and Norway ...	14,485	5,380	34,557	11,776
" Denmark ...	3,018	2,360	7,887	5,339
" France ...	11,917	7,301	30,638	16,398
" Italy ...	210	1,568	654	3,687
" British East Indies ...	159	92	379	219
" Other countries ...	1,619	1,594	3,943	3,472
Total ...	37,118	25,911	91,014	58,593
Wrought, or Manufactures, unenumerated:				
To Sweden and Norway ...	283	351	899	1,036
" Germany ...	135	493	509	1,787
" Turkey ...	3,390	4,137	10,172	11,658
" Egypt ...	2,603	2,605	7,551	6,919
" Brazil ...	1,579	1,239	4,896	3,534
" British East Indies ...	7,589	15,838	20,605	40,276
" Australasia ...	1,478	559	4,444	1,659
" Other countries ...	4,899	5,272	15,198	15,754
Total ...	21,873	30,500	65,471	82,594
Mixed or Yellow Metal:				
To China and Hong Kong ...	1,795	773	4,461	1,763
" British East Indies ...	17,652	25,339	42,339	54,705
" Other countries ...	5,302	5,339	13,608	13,575
Total ...	24,749	31,471	60,408	70,043
Total of Copper ...	63,738	67,812	216,891	211,233
Implement and Tools, and parts thereof	—	—	89,147	92,658

PRINCIPAL AND OTHER ARTICLES.	QUANTITIES.		VALUES.	
	Month ending Feb. 28.	Month ending Feb. 28.	Month ending Feb. 28.	Month ending Feb. 28.
Iron and Steel: Pig-iron:				
To Russia ...	1,900	72	6,365	832
" Sweden and Norway ...	852	1,547	1,702	3,268
" Denmark ...	30	275	89	625
" Germany ...	3,779	6,111	7,820	11,904
" Holland ...	6,750	6,104	15,237	12,880
" Belgium ...	2,355	3,055	5,893	7,121
" France ...	3,371	2,032	8,515	6,873
" Portugal, Azores, and Madeira ...	1,097	483	1,867	1,677
" Spain and Canaries ...	1,349	4,512	3,683	9,507
" United States ...	3,214	3,660	8,933	7,719
" Australasia ...	4,278	778	20,517	4,822
" British North America ...	1,056	1,227	2,897	2,915
" Other countries ...	208	147	642	539
Total ...	31,579	38,676	92,599	86,516
Bar, angle, bolt, and rod	12,143	11,329	76,018	71,430
Railroad of all sorts	45,594	31,976	208,972	141,226
Iron and steel wire, &c.	3,102	2,567	52,612	48,215
Galvanized sheets	14,013	12,954	173,164	153,346
Hoops, plates, boiler plates, &c.	10,127	11,555	92,536	114,151
Cast and wrought iron, &c.	20,827	19,436	289,447	253,614
Old, for re-manufacture	8,504	8,250	24,751	13,570
Steel, unwrought	11,201	13,943	114,016	132,944
Manufactures of steel, or of iron and steel combined	1,598	1,542	42,324	31,529
Total of Iron and steel ...	191,223	175,961	1,554,251	1,346,379

PRINCIPAL AND OTHER ARTICLES.	QUANTITIES.		VALUES.	
	Month ending Feb. 28.	Month ending Feb. 28.	Month ending Feb. 28.	Month ending Feb. 28.
Tin Plates and Sheets:				
To Russia ...	3,938	2,312	46,167	28,610
" Germany ...	379	361	4,095	4,561
" Holland ...	308	450	3,694	6,975
" France ...	340	1,019	4,155	12,469
" Portugal, Azores, and Madeira ...	840	247	10,628	3,049
" Italy ...	311	125	3,999	1,583
" Roumania ...	10	461	143	6,399
" United States ...	20,190	13,413	265,612	167,781
" Brazil ...	569	268	7,654	3,774
" Argentine Republic ...	217	260	2,077	3,394
" British East Indies ...	310	499	4,204	6,057
" British North America ...	617	1,044	8,449	12,955
" Australasia ...	454	1,030	6,395	12,188
" Other countries ...	1,148	3,378	15,890	30,603
Total ...	29,529	22,763	398,212	299,838
Lead: Pig Sheet, Piping, and Manufactures:				
To Russia ...	20	19	210	217
" Germany ...	175	91	1,798	831
" China and Hong Kong ...	753	1,080	7,831	10,624
" Japan ...	221	337	3,394	5,660
" United States ...	101	5	978	94
" British East Indies ...	441	660	6,770	10,013
" Australasia ...	76	24	640	425
" British North America ...	8	8	50	93
" Other countries ...	482	1,338	5,653	14,446
Total ...	2,274	3,008	27,622	42,274
Machinery	—	—	704,192	818,911
Steam Engines	—	—	191,785	204,297

BRITISH AND IRISH PRODUCE—Continued.

PRINCIPAL AND OTHER ARTICLES.	QUANTITIES.		VALUES.	
	Month ending Feb. 28.	Month ending Feb. 28.	Month ending Feb. 28.	Month ending Feb. 28.
Plate and Plated & Gilt Wares: Telegraphic Wires, &c. apparatus connected therewith	—	—	17,228	17,291
Tin, unwrought:				
To Russia ...	1,469	1,349	8,926	5,211
" Sweden and Norway ...	472	542	2,233	2,062
" Germany ...	635	578	3,003	3,532
" France ...	1,183	1,859	5,642	7,173
" Turkey ...	890	1,207	4,189	4,647
" United States ...	724	100	3,465	385
" British North America ...	100	296	484	1,117
" Other countries ...	3,233	3,747	15,745	14,488
Total ...	8,761	10,078	41,787	38,592
Zinc or Spelter: Unwrought and Wrought	16,670	16,611	14,647	7,825
Total of Principal Articles	2,940,040	2,659,184	4,615,368	4,076,707
Other Articles	61,735	59,024	119,338	118,313
Total of Metals and Articles Manufactured therefrom (except Machinery)	2,301,823	2,117,208	4,934,606	4,195,023
Alkali	492,928	429,758	164,694	126,312
Cement	27,155	26,822	46,983	44,299
Products of coal (including paraffin, petroleum, &c.)	—	—	93,293	87,612
Coal, Coke, Cinders, and Fuel:				
To Russia ...	7,340	27,462	4,168	15,094
" Sweden and Norway ...	68,933	149,240	32,495	78,049
" Denmark ...	20,863	65,650	9,413	33,759
" Germany ...	126,954	152,863	63,008	75,331
" Holland ...	20,802	30,610	10,127	15,662
" France ...	417,926	465,237	187,772	243,863
" Portugal, Azores, and Madeira ...	44,243	66,410	20,479	37,340
" Spain and Canaries ...	190,435	191,885	91,563	106,616
" Italy ...	314,068	439,106	140,496	238,593
" Turkey ...	19,572	41,190	10,668	25,702
" Egypt ...	142,495	154,862	71,088	96,270
" Brazil ...	58,280	63,376	36,400	45,801
" Gibraltar ...	7,815	25,255	4,038	16,281
" Malta ...	21,129	51,846	10,720	32,512
" British East Indies ...	128,808	114,050	67,543	68,224
" Other countries ...	324,589	386,472	152,494	231,468
Total ...	1,514,401	2,389,515	942,568	1,360,791

EXPORTS OF FOREIGN AND COLONIAL MERCHANDISE.

PRINCIPAL ARTICLES.	QUANTITIES.		VALUES.	
	Month ended Feb. 28.		Month ended Feb. 28.	
	1893	1894	1893	1894
Copper:	Tons.	Tons.	£	£
Unwrought and part wrought	513	429	25,402	22,213
Iron and Steel:				
Bar, angle, bolt, and rod	839	1,595	6,185	11,909
Steel, unwrought	51	847	881	6,639
Manufactures:				
Girders, beams, and pillars ..	120	133	1,648	678
Unenumerated	47,199	57,455	35,769	35,641
Petroleum	141,739	173,498	6,922	6,739
Quicksilver	223,560	397,698	13,286	21,084
Saltpetre	2,839	6,800	2,445	6,725
Tin, in blocks, ingots, bars, or slabs	21,953	26,749	101,402	98,347

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of March 8 (4 o'clock), as follows:—Market has been dull this week, with prices generally easier; but Dolcoath's recovered to £68 after having fallen to £65. There is but very little doing to-day. Following are quotations:—Blue Hills, 1s. to 3s.; Carn Brea, 11½ to 12½; Cook's Kitchen, ½ to 1; Dolcoath, 67 to 69; East Pool, 10½ to 10¾; Killifreth, ½ to 1; South Condurrow, ½ to 1; South Crofty, 1½ to 2; South West Franches, ½ to 1; Tincroft, 10½ to 10¾; West Franches, 1 to 1½; West Kitty, 6½ to 6¾; Wheal Agar, 1½ to 2; Wheal Bassett, 2½ to 3; Wheal Grenville, 13½ to 14; Wheal Kitty (St. Agnes), 10s. to 12s.; Polberro, 12s. to 14s.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (March 1) as follows:—The mining market has been almost temporarily suspended, awaiting the reaction on tin. Since yesterday the standard has shown a decided improvement, which is expected to continue. Shares generally are firmer on prospect of better prices shortly obtainable. Following are prices:—Blue Hills, 2s. to 2s. 6d.; Carn Brea, 12½ to 12¾; Cook's Kitchen, ½ to 1; Dolcoath, 68 to 68½; Devon Consols, 1 to 1½; East Pool, 10½ to 10¾; Killifreth, ½ to 1; Levant, 6 to 6½; Phoenix United Mines, ½ to 1; Polberro, ½ to 1; South Crofty, 1½ to 1¾; South Franches, ½ to 1; Tincroft, 10½ to 11; West Franches, 1 to 1½; West Kitty, 6½ to 7; Wheal Agar, 2 to 2½; Wheal Bassett, 3 to 3½; Wheal Friendly, 3s. to 4s.; Wheal Grenville, 14 to 14½; Wheal Kitty, ½ to 1.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers, and Mining Share Dealers, Redruth, write under date of Thursday, March 8:—A considerably better tone has been manifested in the Cornish share market during the last day or so. Consequent on the slight recovery in tin, and after the recent severe drop, any upward movement quickly has its effect on the price of shares. The chief dealings have been in Dolcoath and Killifreth, the former showing a good advance from the lowest point touched. Most other shares, after being flat, are better at the close. Quotations herewith (four o'clock):—Carn Brea, 12 to 12½; Cook's Kitchen, ½ to 1; Dolcoath, 67½ to 68½; East Pool, 10½ to 10¾; Killifreth, ½ to 1; Phoenix, ½ to 1; Polberro, ½ to 1; South Condurrow, ½ to 1; South Crofty, 1½ to 1¾; Tincroft, 10½ to 11; West Franches, 1 to 1½; West Kitty, 6 to 6½; Wheal Agar, 2 to 2½; Wheal Bassett, 2½ to 3½; Wheal Friendly, 2s. to 4s.; Wheal Grenville, 13 to 14; Wheal Kitty, ½ to 1. Tin, 65½.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, 8th March, 1894 (noon):—With now and then a little activity (which was short-lived, however), the several departments of rails have ruled dull again during the past week. In home rails lower figures on balance are in a majority, but the declines are all expressed in fractions—mostly small—save for Great Northern, A, which are 1 down. On the other side, Scotch stocks are prominent, the Caledonian dividend having put Cilas 1½ and the undivided stock 1½. Sympathetically, North British New Ordinary is ½ better, but beyond these there is nothing of importance save rise of ½ on Brighton, A. Returning to the declines, it may be noted that "little Chatham's" are 9-16 and South-Eastern, A, ½ down. Americans, with a strong lead in Milwaukee's, are very generally better on balance after some fluctuations. Milwaukee's are ½, Aitchison Ordinary 1½, ditto Income Bonds 1, and a lot of others higher in smallish fractions, New York Central ¾ being the nearest approach to a dollar rise amongst them. A single exception is furnished by Norfolk Preferred, which mark fall of ½, not sufficient to warrant special remark except for its isolated position. In Canadian, changes are very few and slight. Pacifics are ¾, Trunk First Pref. ½ to 1 up, and Trunk Ordinary 1-16 to 1 lower. Mexicans have been idle, and the only variations in quotations are advances of ½ each in ordinary and first preference. Consols, allowing for quotation being now ex dividend, show a further gain of 3-16 on the week. A little set back has occurred in the market for Colonial Bonds, &c., this week, the only changes being to lower prices instead of all the other way as of late. New South Wales Inscribed are ½ to 1, ditto Consolidated 1, Queensland Inscribed 1, and Victoria Inscribed ½ lower, and as we have said without any advances to set against them. Foreigners furnish a long list of improved prices, with little or nothing on the downward side to contradict them. Spanish Four per Cents, are 1½, Portuguese Three per Cents, 1½, Argentine Six per Cents, 1½ to 1, Brazilian 4½ per Cents, 1, ditto Four per Cents, ½ to 1, Italian Rentes ½ to 1, Mexican Six per Cents, ½ to 1, Turkish (1854) 1, and ditto Group IV, ½ higher. Lower Egyptian Unified ½, Uruguayan Three and a Half per Cent, ½. Only a very moderate number of transactions are reported in the several classes of shares, and what has been done is pretty well distributed amongst the different sections of the market.

BANKS.—The business herein has been confined to a few concerns. Consolidated, Parry, and Alliance, and Manchester and Salford furnishing nearly all the dealings marked. Manchester and County are quoted ½ to 1 lower, but the rest of the changes are favourable. They are as follows: Parry and the Alliance, ½; Imperial Ottoman, ½; District, ½; and Bank of Liverpool, ½.

INSURANCE.—Manchester Fires have been done repeatedly, but transactions are very straggling besides, and reach but a poor total. The changes on the week are as follows: Higher: Lancashire, ½ to 1; Manchester Fire, 5-16 to 1; Liverpool and London and Globe, ½ to 1; British and Foreign Marine, ½; London and Lancashire, ½; and Maritime, 1-16. Lower: Commercial Union, ½; Palatine, ½; and Royal (Liverpool), ½.

COAL, IRON, &c.—Business very small, confined to Bolckow issues and Ebbw Vale, and the last named represented by only one mark. Bolckow Ordinary fully, and £12 paid issues are ½ and 1 lower down respectively, and Ebbw Vale are ½ better. The other alterations are: Astley and Tyldesley Coal and Salt, 1; John Brown's, ½; and Railroad Evans A, ½ higher. Lower: Parkgate, 1.

COTTON SPINNING, &c.—Dullness still prevails, with a drooping tendency in the "low rank" concerns, although some of these, together with the specialities, are difficult to meet with except at full late prices.

MINER.—De Beers are ½ higher, Consolidated Gold Fields of South Africa ½, Mysore ½, and Oorogum 1-16 lower.

TELEGRAPH.—Direct United States Cable ½, Western and Brazilian ½, and Eastern ½ higher. No other changes marked.

BREWRIES.—This market has furnished the sensation of the week in Allsopp's. The business therein has been largely repeated, and notwithstanding some fairly wide oscillations in prices, the ordinary remain with a rise of 11 since Thursday last. Guinness, &c., are distinctly higher, viz., 7. The only change in local is a rise of ½ in Threlfall's. Chadwick's Cotton had a sharp drop on the publication of their report, but as regards the shares a good portion of the fall has been recovered, leaving Ordinary only ½ down on the week. Gas Light and Coke "A" are 5, Imperial Continental Gas 2, and Suez Canal 1½ higher. Salt Union Ordinary, too, are 7-16, and Coats' Cotton ½ up. Branner Mond and Co. quieter, and prices not much different from those of a week ago, the fully paid are ½ better, and new ½ lower. Ship Canal issues easier; Ordinary 3-16, and Preference 1-16 to 1.

LATER (4 P.M.).—Scotch stocks were strong again early in the day, but did not maintain best points touched. New York sent better prices this morning (from their of yesterday), and the market responded at the opening here, but buying was not continued, still figures kept steady down to the close. Nothing of moment to report to-day from Canadians or Mexicans. Allsopp's keep well up to top or near top prices of the week.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (March 8), writes:—During the past week the markets have had an upward tendency. Although trade does not appear very active yet, it is encouraging that labour disputes are being avoided. The money market remains easy. The official announcement of Mr. Gladstone's resignation, and of Lord Rosebery's accession to the Premiership, has not affected markets much.

In shares of coal, iron, and steel companies prices are steady. The Marbella output for February has been 692 tons. The meeting of this company on 6th inst. adjourned for a fortnight. Objections were made to charges in the accounts for directors' travelling expenses. Bolckow, Vaughan are at 12½; Cairnstable, 9½; Ebbw Vale, 8 11-16ths; Niddrie, 47s. 6d.; Rhymney Iron, 15s. 6d.; Steel Company of Scotland, 75s.; Stewart and Clydesdale, 8½; Wilson's and Clyde, 9½.

In shares of foreign copper concerns there has been little business doing, but prices are firm. This is remarkable, considering that copper touched as low a price as £40 this week. Arizona, Tharsis, and Tinto are all rather better.

In shares of gold and silver mines a fair amount of business has been done. Montana are about 5s. 6d.; last month's output was \$49,300 and expenses \$45,500. Kimberley Rodepoort fell to 6s. 6d., on statements that the mine was to be shut down, but have recovered to 10s. It is expected that the Lisbon-Berlyn crashing will be announced before the end of this month. African Gold Recovery are at 28s.; British South Africa Chartered, 29s. 6d.; Broken Hill Proprietary, 47s. 6d., after touching 43s. 3d.; Balaghat, 5s.; Cassel, 18s. 6d.; Champion Reef, 72s.; Consolidated Gold Fields of South Africa, 45s.; Cinto, 1s. 6d.; East Rand, 14s. 6d.; Gold Fields of Mysore, 24s. 9d.; Idaho, 1s.; Joe's Luck, 2s. 3d.; Loma, 1s. 3d.; La Plata, 9d.; New Queen, 1s. 3d.; South African Trust and Finance, 3s. 3d.; Sheba, 21s. 9d.; St. John del Rey, 20s. 9d.; Spitzkop, 1s. 9d.; Sutherland Reef, 4s. 3d.; and West Argentine, 1s. 9d.

In shares of miscellaneous companies there has not been much business doing. The dividend on Price's Candle shares is announced at 15s., which makes 25s. per share for last year. In oil companies, Broxburn are at 8½, Pumpherston 17, and Young's Oil 26s.; Lawes' Chemical are at 6½, Nobel's Explosives 13½, Petroleum Oil Trust 16s., and White Lead 5s. 6d.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of March 8: The announcement of the Caledonian Railway dividend had a favourable effect on the market. The deferred converted stock of that company has advanced from 41½ to 42½. North British has improved from 40 1-16 to 41½. A very considerable business has been done in these two stocks. Brighton Deferred has improved from 152½ to 152 3-16. Great Northern Deferred, South-Eastern Deferred, and Chatham are lower. Banks generally lower. Bank of Scotland has declined from 335½ to 334, National from 332 to 331, Royal from 228½ to 227. British Linen has risen from 368 to 369. In Insurance shares Alliance have improved from £9 4s. 6d. to £9 4s. Life Association from 38½ to 39½, Scottish Union and National, A, from 78s. 9d. to 79s. 3d., Standard Life from 57 to 58, Lancashire from 93s. 9d. to 95s., Liverpool, London, and Globe have declined from 44½ to 44, Commercial Union from 30½ to 30½. British South African shares have receded from 30s. 3d. to 29s. 3d., Scottish American Mortgage shares from 58s. to 57s. 6d. Scottish Reversionary have improved from 7 11-16 to 7½. Mineral shares good. Addie are up from 9 11-16 to 9½. Cowdenbath Coal from 14 to 14½, Stewart and Clydesdale from 11 13-16 to 11 15-16, John Watsons from 12½ to 12 9-16. Broxburn Oil 1s. 3d., up at 8 13-16; Edinburgh Tramways 9d., lower at 5 3-16; Barry Ostlers 1s. 3d., higher at 7 9-16; Coats, 6s. 3d., higher at 7½.

THE AUSTRALIAN TURQUOISE.—The discovery of the true turquoise in the colony of Victoria has given rise to a new phase of the mining industry there, from which important results are anticipated. The pioneer in the movement is Mr. P. C. Gascoigne, who from the year 1879 to 1888, was a member of the Victorian Mounted Police. He had a hobby for collecting minerals from the various districts he visited, and when stationed at Hedi, in the King River district, a locality which was formerly the hunting ground of the Kelly gang of bushmen, he became acquainted with a young man named Edward Burke, a thorough bushman, of whom he one day enquired if he ever came across any traces of gold there, Burke replied that he had not, but that a year previously he had found on the hills, 12 miles away, a pale blue stone in veins in the rocks, and nobody seemed to know what it was. Gascoigne became interested, and in September, 1888, the two set off to the place together. When they arrived there they commenced their search together, but Burke speedily left Gascoigne alone, whilst he followed up the tracks of some wild horses he had come across. Gascoigne persevered in his search, and at last found a large outcrop of grey slaty rock, in which there was a blue vein. He took out a number of pieces of the blue stone, which Burke, on returning from his pursuit of the wild horses, recognised as the same sort that he had picked up a year before. No one at Hedi could say what the stone was, and even the Sandhurst School of Mines, and the Secretary for Mines, Melbourne, reported that it was of very little value. Gascoigne still had faith in the discovery, and when he visited Melbourne later on, the stone was thoroughly tested by an Italian expert, who found it to be true turquoise—a judgment which has since been thoroughly confirmed. Two mining leases were then secured, the Hedi claim was worked by a company, and the New Discovery claim by P. C. Gascoigne, in conjunction with his brother, F. C. Gascoigne, and a German lapidary named Becker, who thought so much of the find that he gave up business in Melbourne in order that he might join in the work. They had but little capital, and had to work hard for some months to raise a consignment for Europe, where they hoped to secure a market. Favourable returns came to hand, and one firm gave an order for a large quantity to be forwarded for cameo cutting, but just as the greater portion had been despatched, a cablegram came to hand stating that cameos had all at once gone out of fashion, and countermanding the order. Prospects have now improved, and shafts have been sunk 40 or 50 yards in order to reach a depth where it is thought a stone will be found equal to the finest that the world can produce. Other claims are being taken up, and there is reason to believe that before long turquoise from Australia will be competing in European markets with those that have been found from time immemorial in the famous mines of the Persian province of Khorassan. One noteworthy feature about turquoise mining is that although veins may be traced on or near the surface, the stone so found is generally affected by surface drainage, and the atmospheric influence of countless centuries. Experience proves that the deeper the miner goes, the better is his chance of finding stone of first-rate quality. (Communicated.)

SOUTH WALES COAL TRADE.—An adjourned meeting of delegates, representing the miners in South Wales and Monmouthshire, under the slicing scale, was held at Cardiff on Saturday, to consider the question of the restriction of output at the collieries. A resolution was passed to the effect that the representatives of the employers and the workmen should mutually agree upon some means to regulate the supply so as not to exceed the demand of coal. In the meantime all the colliery workmen embraced in the districts represented were asked to adhere strictly to the nine hours' shift.

THE NUMBER OF PEOPLE who commit suicide annually, in all parts of the world, is estimated to be about 140,000. The month of June is supposed to be the favourite with those who are in a hurry to give up life and its responsibilities. There are many people, however, guilty of suicide, whose deaths are recorded as the result of natural causes. They may be classed as those misguided individuals who willfully neglect the most simple rules of health, and altogether allow their internal machinery to get hopelessly out of order. The result of disease is thus frequently fatal. Holloway's Pills keep the body in good health, and enable it to withstand the attacks of disease.

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Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
Scot (Twin Screw)	—	—	—	March 17
Trojan	—	March 11	March 17	March 17
Trojan	—	—	—	March 24
Mexican	—	—	—	March 31
Gaul (Twin Screw)	March 25	—	March 31	April 7

† Calling at Madeira. † Via Lisbon and Tenerife. † To East Africa. * Via Lisbon, Tenerife, and St. Helena. The twin screw s.s. Scot will sail from Southampton on 17th March. All Steamers now leave Southampton on Saturday. The Union Line Express is despatched from Waterloo Station (Main Line Platform) every Saturday.

RETURN TICKETS ISSUED. Apply to the UNION STEAMSHIP COMPANY (Limited), Canute Road, Southampton; 14, Cockspur Street, London, S.W.; and South African House, 94 to 96, Bishopsgate Street Within, London, E.C.

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Steamers.	London.	Southampton.
City of Agra (via Grand Canary)	March 16	March 17
Rodin Castle (via Madeira)	March 23	March 24
* Methven Castle (via Grand Canary)	March 30	March 31
Dunottar Castle (via Madeira)	April 6	April 7

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COMPANIES AND LEGAL ANNOUNCEMENTS.

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THE MYSORE GOLD MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that the TRANSFER BOOKS of the above Company will be CLOSED from the 6th to the 20th instant, both days inclusive. By order of the Board, I. CROCKER, Secretary.

Registered Offices: 6 and 7, Queen Street Place, London, E.C., 5th March, 1894.

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MINING IN CORNWALL AND DEVON: NOTES ON WESTERN MINING, EDITORIAL AND OTHERWISE.

THERE is practically no change in the position of mining affairs in Cornwall, whether as regards the tin or the share market, since we last wrote. The position could hardly be more dull and depressing, in either respect, than it is, and the best that can be said is that mining folks are still living in hope, and meanwhile doing what they can to cope with the pressure of this most unwelcome emergency. The quotation of prices of shares is really quite an absurdity, if it is to be taken as affording any adequate view of the real value of the concerns in question; and it is quite certain that the published figures, with regard to the stocks of metal, will not account for the position of that market. How far these figures are adequate and reliable is a matter, therefore, on which opinions materially differ.

SOME doubt has been thrown on the policy of restricting returns in our paying mines, so as not to throw more metal on the market at the present prices than is needful; but surely it is only a matter of relative arrangement after all. No man in any ordinary business in his sober senses would force his goods on the market at an unremunerative figure when he felt sure that the long prices would rise. And is not the case the same with regard to tin? That enough tin should be raised to meet expenses goes without saying; and where a considerable body of persons are more or less dependent upon dividends for a living, that has also necessarily to be considered. But this is a very different thing from suggesting that because many men are shareholders in many mines the profitable one should be worked at what, under the circumstance, would be an undue rate, in order that the dividends from one mine, or group of mines, should meet the calls in another. If this were really so, we might as well throw all the mining interests of Cornwall into what the lawyers call "hotch potch," at once. It is manifestly most unfair that the adventurers in individual mines should have their interests set on one side for the sake of other concerns with which they have nothing to do. And, therefore, the only proper way of dealing with these matters is that the interests of each mine should be regarded from an independent standpoint; for it is quite certain that, however plausible the contra policy may seem, that which is best for the interests of each mine individually will, in the long run, be found to be best for the whole collectively.

It seems to be nothing more than reasonable that the guardians should pay the larger proportion of the costs in the Wheal Grenville case, as compared with the Camborne Local Board, seeing that the chief advantage is to them—the poor rate being more than twice as much benefited as compared with the district rate. To ask the guardians under these circumstances to pay half the costs is really to take a very reasonable and liberal view of the case.

We are glad to find that the Wheal Uny business is being thoroughly investigated. As we have already said, the last enquiry left matters in a most unsatisfactory position all round. It was only a matter of common justice that all who are concerned should have the fullest opportunity of making their statements, and it is only common justice also that until then all expression of opinion should be suspended.

SOCIETY OF ENGINEERS.

PAPER BY MR. HENRY O'CONNOR.

AT a meeting of the Society of Engineers, held at the Town Hall, Westminster, on Monday evening, Mr. G. A. GOODWIN, President, in the chair, a paper was read by Mr. Henry O'Connor on "Pile Driving."

The author, having remarked upon the difference in the formulae suggested by different engineers for calculating the weight required to sink a pile further in the ground, exhibited a diagram giving the result of these calculations for two piles, which showed that by one formula only 72 tons would sink the pile further, whereas by another formula it would take 300 tons. This great difference was accounted for by the various strata of the ground through which the pile was driven, and which the author said was not sufficiently allowed for, and showed a system which he had adopted of finding out the resistance of each layer of the ground, and the force required to withdraw a pile.

The author then went on to describe the steam pile driver, used to drive the piles, which afterwards had to be withdrawn, and then remarked upon the breaking load of a pine pillar, and the side pressure, which would be exerted at the moment of impact, and the method of obtaining the resistance of the ground, which would be offered to the pile when it had been driven home. The author next mentioned some experiments he had made on the force of the blow from a monkey falling different heights, and pointed out that the friction against the guides of the pile driver reduced the blow which the ordinary calculation for a falling weight would indicate. The author described the difficulty which had been recently experienced at Beckton, in getting a large number of cast-iron piles to stand a specified test, and showed various shoes for fitting on the bottom of the piles to prevent them sinking through the thin stratum of ballast which was found there. He then pointed out the shape which the pile was afterwards made, and which had the desired effect, and passed on to the effect which the interposition of a hard wooden dolly had upon the blow given by a falling ram, and showed the results of certain experiments to ascertain the loss of effective blow upon the pile. Afterwards he gave the result of a test load placed upon a cast-iron pile, which he had driven to a test of $\frac{1}{2}$ inch, set for four 5 feet blows of a 1 ton ram, and showed a sketch of a continuous action steam pile driver used to drive a large number of cast-iron piles.

The author mentioned the enormous blow given in America, when driving a large number of piles, and the effective blow which the pile would receive at the moment of impact, the large blow causing many of the pile tops to crush. The author, having stated what he would consider as a safe load on a wooden pile driven in such strata, showed a diagram which he had recently got out, and which was the result of an enormous number of calculations, by which the safe load on unsupported cast-iron columns might be easily and rapidly found.

The author, in conclusion, gave some comparative figures as to the cost of driving a wooden pile, a cast-iron pile, and making the smallest workable excavation, and concreting the same, showing that the cast-iron pile cost about $3\frac{1}{2}$ times as much as the wooden one, while the excavation cost about eight times as much.

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IMPORTANT TO SHAREHOLDERS.—In the Chancery Division, on Tuesday, Mr. Justice Stirling heard an application from the debenture-holders of the General and Commercial Investment Trust, who sought to restrain the directors from declaring a dividend, on the ground that whilst the paid-up capital, amounting to £900,000 had been invested, the present value was much less. Mr. Justice Stirling decided that as last year £23,000 profit had been made, the directors were entitled to distribute that sum.

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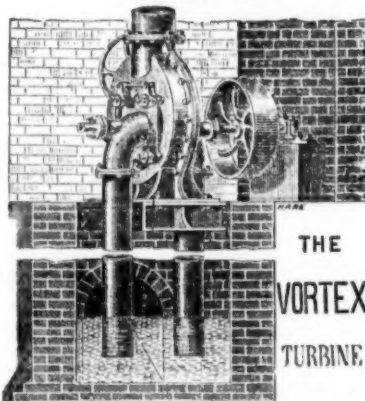
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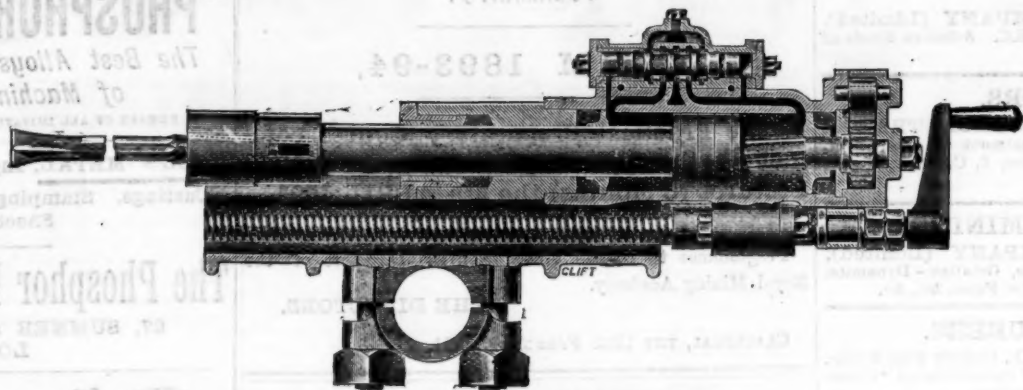
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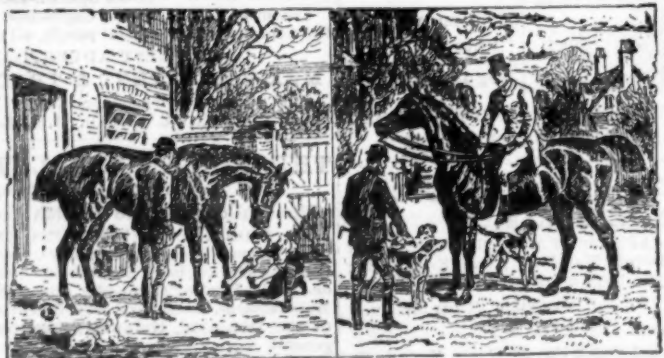
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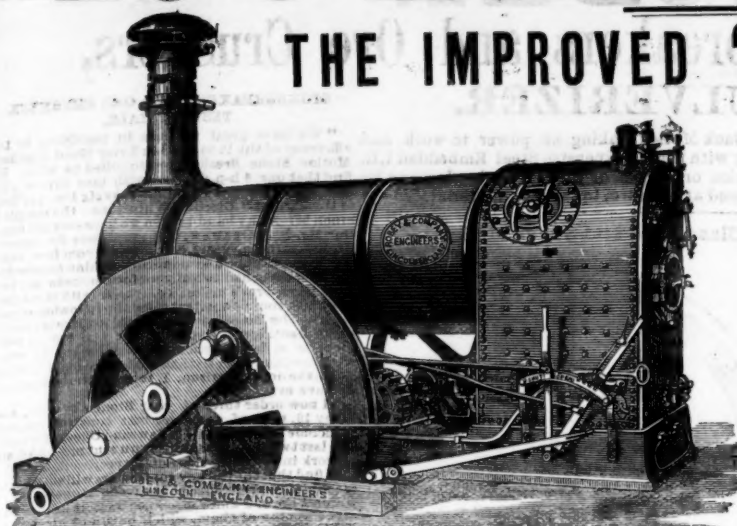
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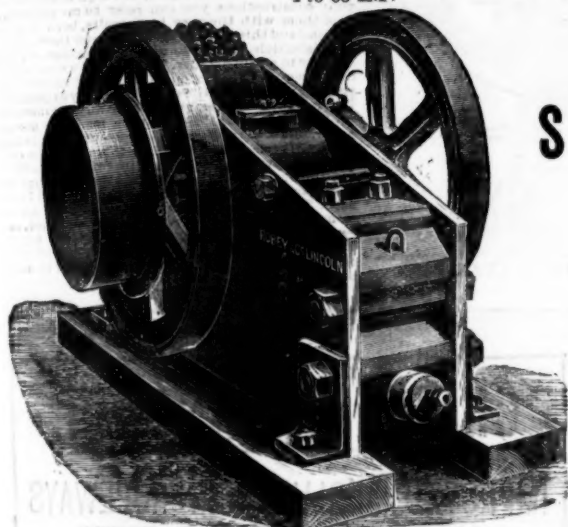


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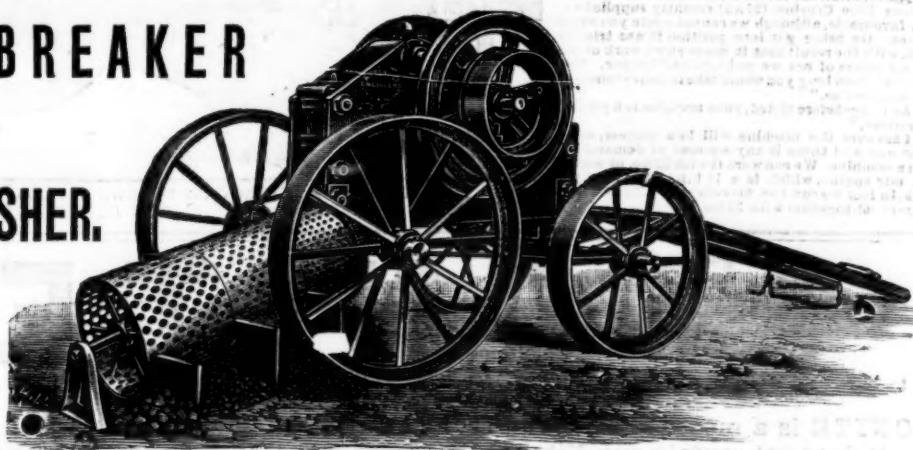
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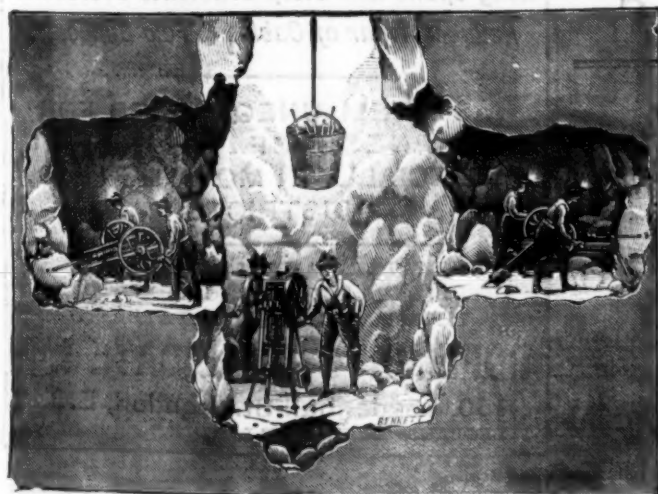
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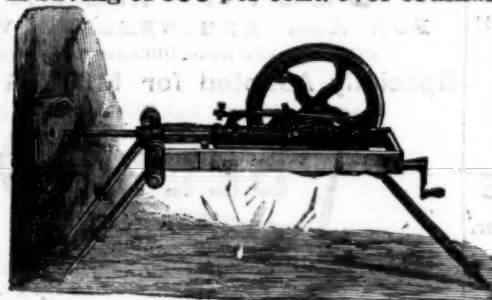
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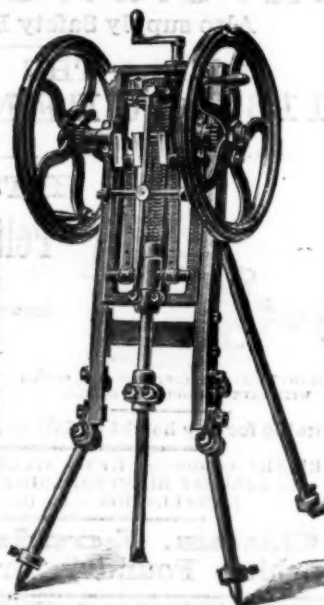
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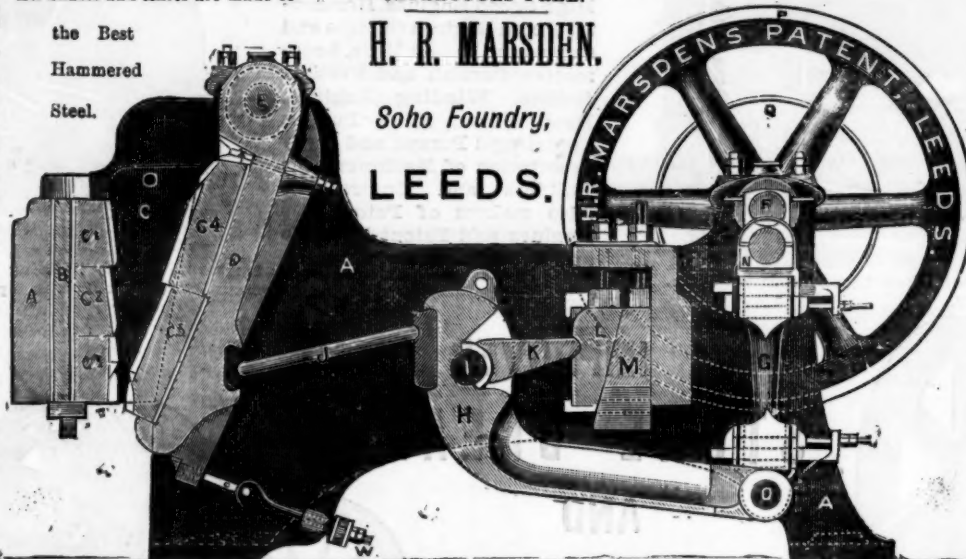
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